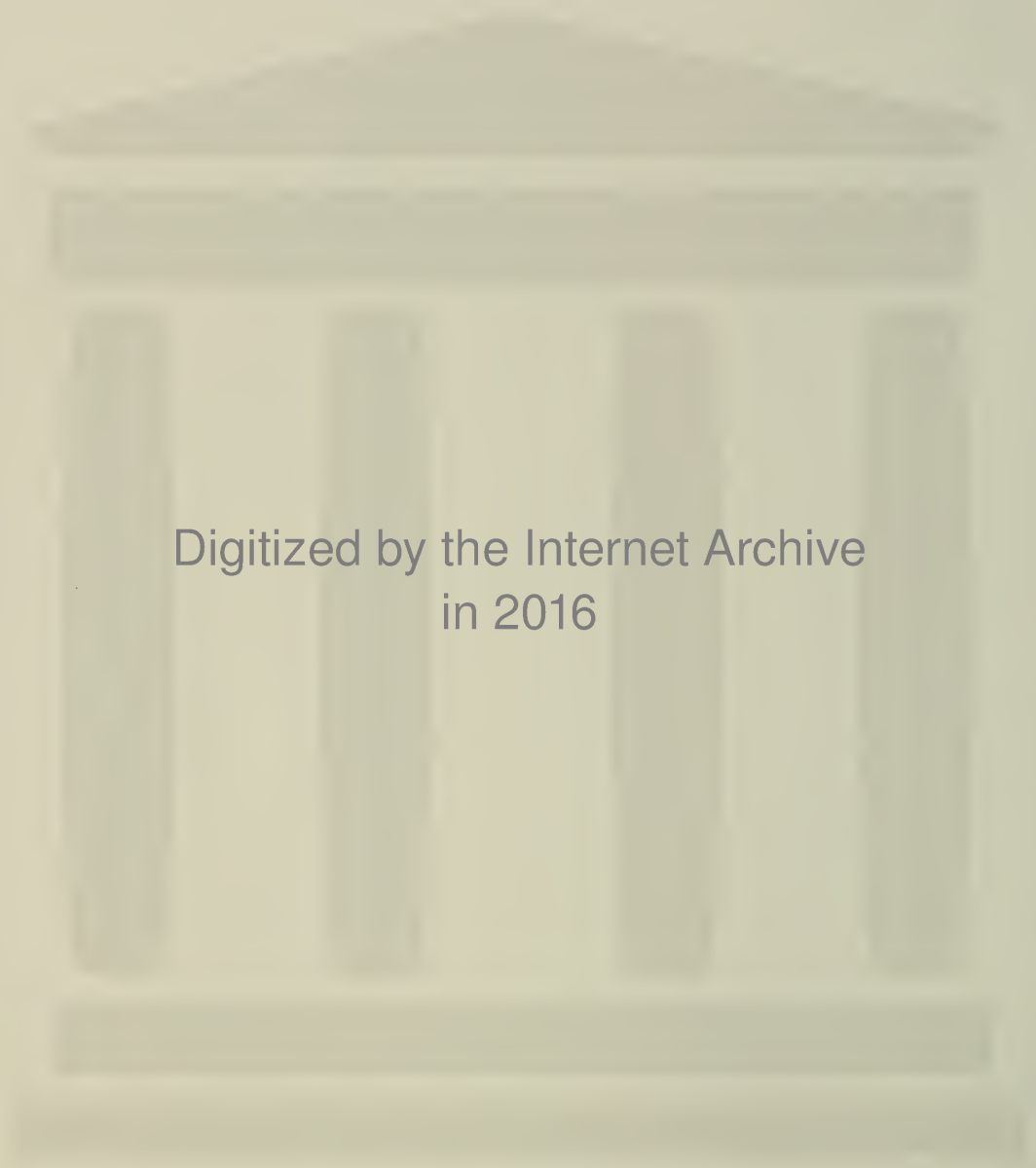


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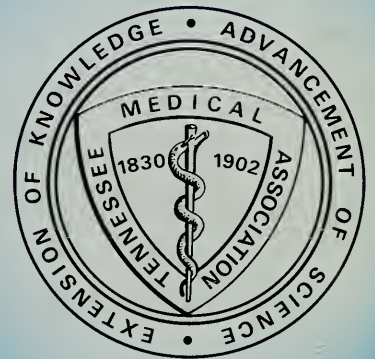
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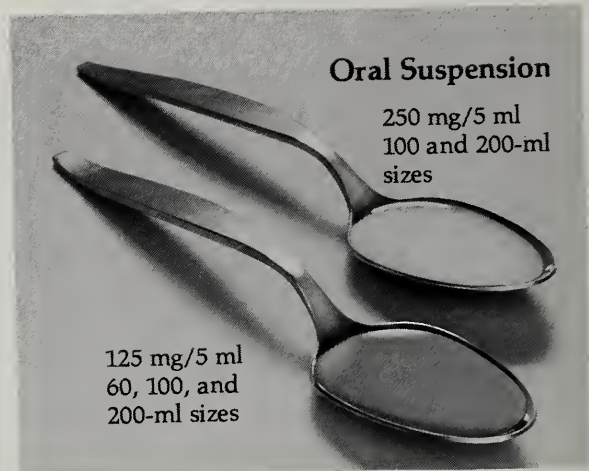
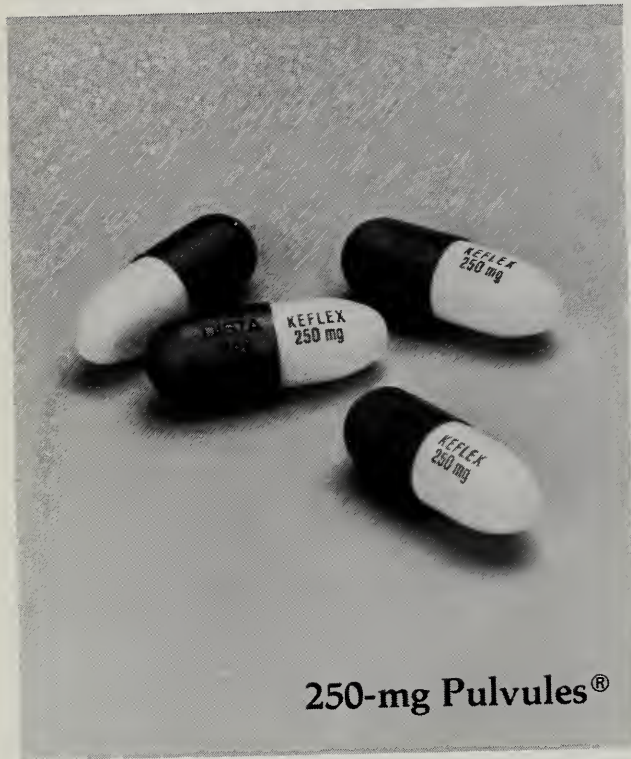
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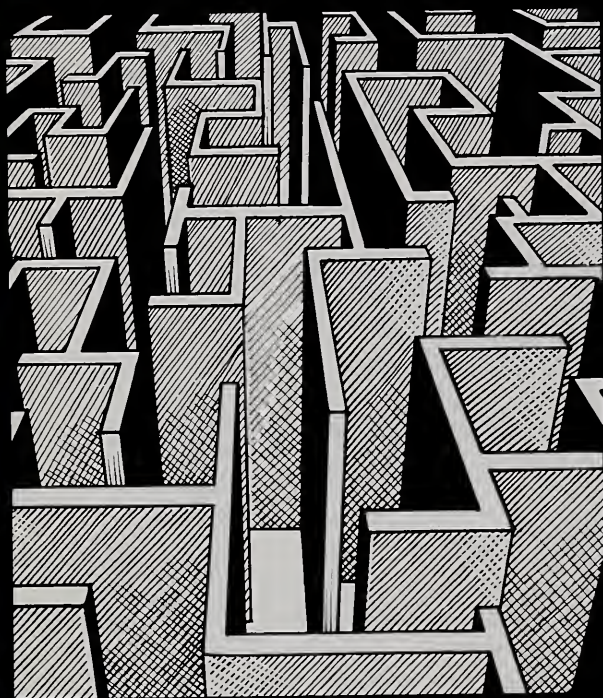
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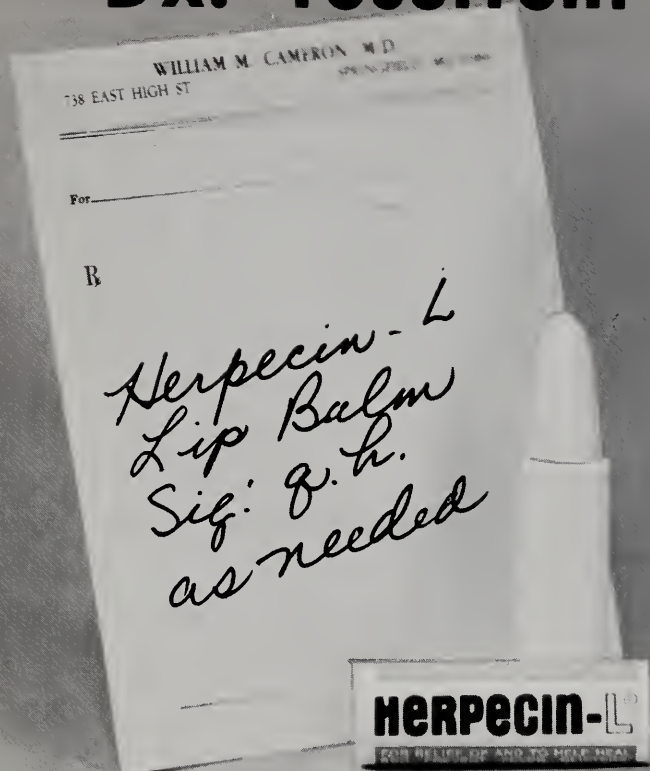
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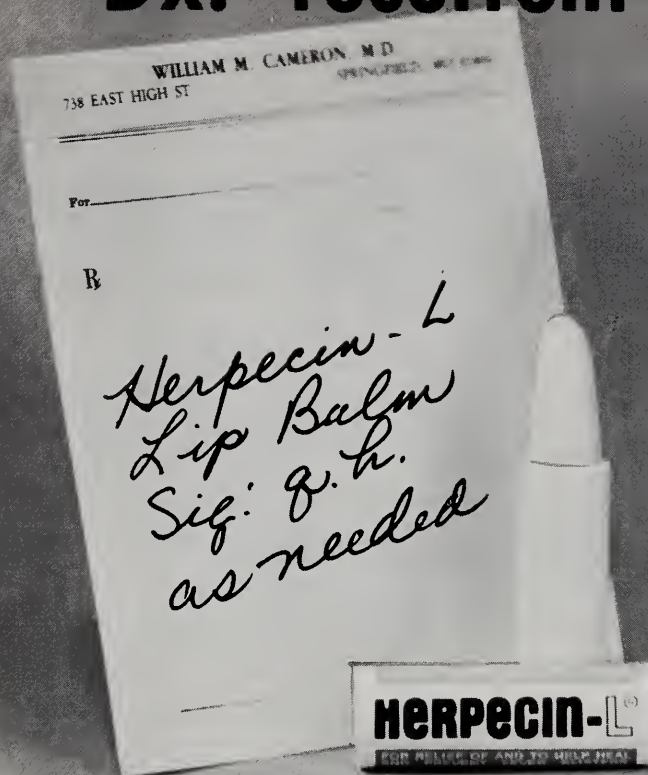
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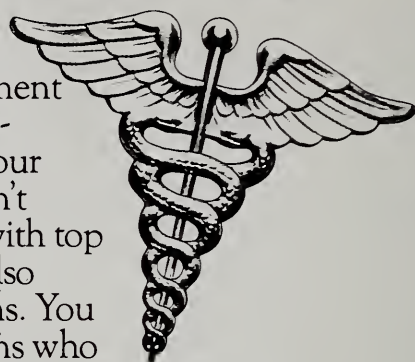
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Fulminant Fatal Myositis Associated With Anti-Ribonucleoprotein And Anti-SM Antibodies

MICHAEL J. LICHTENSTEIN, M.D. and RANDY D. ROBERTS, M.D.

Fulminant diffuse myositis is not a well described clinical entity.^{1,2} We describe an adult patient with high titers of antinuclear antibody (ANA), anti-ribonucleoprotein antibody (anti-RNP), and anti-Smith antibody (anti-Sm), who died of complications of myositis. The differential diagnosis for this presentation of myositis is discussed.

Case Presentation

A 53-year-old black woman was in good health until two weeks prior to her admission to the Metropolitan Nashville General Hospital, when she developed pain in her left leg. Her physician initially treated her with triamterene, hydrochlorothiazide and dexamethasone; during the three days before admission she complained of diffuse myalgias for which she took aspirin.

On admission, the patient was intermittently confused. Her pulse was 108/min, blood pressure 180/120 mm Hg supine, and respiratory rate 20/min. She had grade 2 hypertensive retinopathy, dry mucous membranes, and a supple neck without thyromegaly. The heart was enlarged with the point of maximum impulse in the sixth left intercostal space, and a grade III/VI systolic murmur was heard at the apex. Her chest was clear to auscultation. There was no lymphadenopathy, splenomegaly, or hepatomegaly. Her knees were warm and erythematous but without effusions, and no other joint abnormalities were noted. There was an erythematous hue to

her skin, especially around the eyes and over the proximal extremities and chest. Her muscle strength was grade 2/5 in the neck flexors, grade 3/5 in the proximal muscles, and grade 4/5 in her distal muscles.

The admission laboratory data were noteworthy for a serum sodium of 125 mEq/liter, potassium of 4.5 mEq/liter, chloride of 91 mEq/liter, bicarbonate of 21 mEq/liter, blood urea nitrogen (BUN) of 39 mg/dl, hematocrit of 45%, white blood cell count of 8,400/cu mm, and platelet count of 202,000/cu mm. The serum glutamic oxaloacetic transaminase (SGOT) was 725 U/liter (normal value 7-40), the alkaline phosphatase 115 U/liter (normal 30-115), the lactic dehydrogenase (LDH) 1,100 U/liter (normal 100-255), and the creatine phosphokinase (CPK) was 4,080 IU/liter (normal 36-128). A urinary screen for myoglobin was positive, and there was a 7.3-gm proteinuria per 24 hours. Other studies included a Wintrobe sedimentation rate of 49 mm/hr (corrected to 36 mm/hr), an RA latex agglutination titer of 1:20, an ANA titer of 1:2,560 with a speckled pattern, a serum aldolase of 23 μ /ml (normal 1.2 to 7.6), and a total hemolytic complement of 47 (normal 49-139). Thyroid function studies were normal. The patient's anti-RNP and anti-Sm antibodies were both positive. The extractable nuclear antigen (ENA) was positive at a titer of 1:33,000, which after treatment with RNase had a titer of 1:4,000. An anti-DNA antibody and the PM-1 precipitation reaction were both negative.

The patient's hospital course was characterized by worsening myalgias and episodes of confusion. Lumbar puncture revealed one polymorphonuclear leukocyte, a glucose of 52 mg/dl, and protein of 44 mg/dl. A CT scan of the head was normal. Cultures of blood, urine, and cerebrospinal fluid all were sterile, and no viruses were isolated from the patient's stool. The hyponatremia was corrected by infusion of normal saline. A salicylate level was not obtained.

The patient developed progressive azotemia, her BUN rising to 90 mg/dl and creatinine to 2.6 mg/dl. On the eighth hospital day she was treated with prednisone 30 mg twice a day, which was increased the next day to 20 mg every six hours. On the tenth hospital day she received 500 mg of cyclophosphamide intravenously but did not respond to this

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therapy, her creatine phosphokinase levels remaining at 6,320 IU/liter, and on the 14th hospital day she developed a cardiorespiratory arrest and died.

At postmortem examination a diffuse round cell perivascular inflammatory infiltrate involved all the skeletal muscles (Fig. 1). There was no evidence of vasculitis or myocarditis, and no lymphadenopathy was present. Histologically, the kidneys were normal by light microscopy, including a Jones' silver stain of the glomeruli. The lungs were diffusely involved with a bronchopneumonia and alveolar hemorrhage.

Discussion

Causes of muscle injury that may lead to massive rhabdomyolysis and myoglobinuric renal failure are numerous, and include excessive muscular activity, direct muscle injury (e.g., trauma, heat, ischemia), hypocalcemia, hypophosphatemia, drugs (e.g., heroin, succinylcholine), toxins, the muscular dystrophies, genetic disorders (e.g., phosphofructokinase deficiency, myophosphorylase deficiency), and others.³ Inflammatory muscle diseases have been rarely reported as causes of diffuse myositis and myoglobinuric renal failure.

At autopsy our patient had a striking round cell infiltrate involving the skeletal muscles (Fig. 1). It is not possible to say with certainty which category of rheumatic disease her illness may represent, since the clinical picture and course were so unusual.

Although polymyositis complicated by myoglobinuria and renal failure has been previously described,^{4,5} reviews of polymyositis in the literature and in textbooks of rheumatology make scant mention of the occasional adult patient whose illness develops rapidly and is fatal within weeks to months of its onset.^{1,2} Patients with dermatomyositis or polymyositis have infrequently been found to have antibodies to ENA, and have not yet been reported to have anti-Sm antibody.^{6,7} The negative PM-1 precipitin reaction is evidence against this patient having polymyositis.⁶

Between 8% and 32% of patients with SLE have myalgias, muscle weakness, and myositis,^{7,8} but the muscle disease is usually present at the onset of illness and is mild. Of Tsokos' 18 cases of SLE with muscle disease, only one had an elevated serum CPK, but 11 had elevated serum aldolase values.⁸ Five of the 11 patients undergoing muscle biopsy had an interstitial perivascular inflammatory infiltrate, while the remaining six had atrophy without inflammation.⁸ The myositis, proteinuria, central nervous system symp-

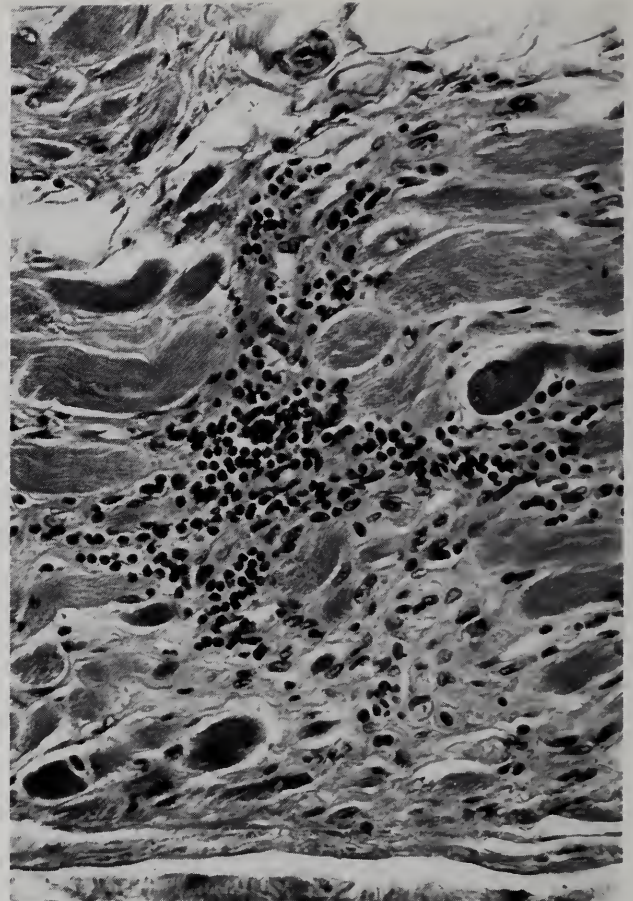


Figure 1. Photomicrograph of rectus abdominis muscle demonstrating a predominant round cell interstitial inflammatory infiltrate, edema, and necrosis of muscle fibers (hematoxylin-eosin, X250).

toms, arthralgias, and anti-Sm antibody in our patient are consistent with SLE.

In 72% of the 25 original patients with mixed connective tissue disease (MCTD) reported by Sharp⁹ there was muscle involvement described as myalgias, tenderness, and proximal muscle weakness, accompanied by elevated serum levels of CPK. Inflammatory infiltrates involving muscle were noted in seven of the eight patients who underwent biopsy. In another series of 46 patients with MCTD, Prystowsky noted mild myalgia, fatigue, and weakness in 57% and moderate to severe myositis with elevated muscle enzymes in 26%.¹⁰ Neither series notes any deaths related to a fulminant myositis. While anti-Sm antibody is usually found in patients with SLE, it has rarely been noted in patients with MCTD.^{11,12}

Myositis may develop acutely in influenzal illness and may follow a fulminant course with the development of myoglobinuric renal failure.¹³ Our patient was well until two weeks prior to admission and her course was similar to that of seven

other adults (ages 19 to 65, reported separately in the literature but summarized by Gamboa¹⁴), who had influenza A or B infection. These patients had a short (three day to two week) prodrome of fever, myalgia, and upper respiratory complaints and suddenly developed rhabdomyolysis. Most survived, but Gamboa's patient, a 65-year-old man who had influenza B cultured from his muscle, died. We were unable to isolate any virus from our patient's stool, and are not aware of an association between influenzal disease and the presence of ENA.

Had the patient survived her acute illness she might have developed further signs and symptoms that would have helped characterize her disease. While she had a course more characteristic of the inflammatory myositis seen with some viral infections, we believe that the presence of antinuclear antibodies and antibodies to ENA indicate that her myositis was of an autoimmune nature. She may be an example of an SLE-polymyositis overlap syndrome. It is important to recognize the fulminant course of myositis in some patients as an unusual subset of rheumatic disease, and perhaps the initial manifestation of primary polymyositis, SLE, or MCTD.

Acknowledgment
The authors wish to thank Dr. Gordon Sharp for performing the Anti-RNP, Anti-Sm and PM-1 assays.

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Cervical Disc Surgery— A Historical Review

J. KENYON RAINER, M.D.

The first recorded description of the intervertebral disc was by Vesalius in 1555. He recognized the difference between the consistency of its outer aspect, the annulus fibrosus, and its inner aspect, the nucleus pulposus, but it was not until more than three centuries later, between 1855 and 1880, that further details of the anatomy, physiology, and embryology of the spine and discs were elaborated by Virchow, von Luschka, Remak, and Lowe.¹

Schmorl in 1928 published his postmortem studies demonstrating the frequency (38%) of displacement of the nucleus pulposus into the spongiosa of the vertebral body. In 1929 he reported many instances in which cartilaginous masses found in the spinal canal proved to be nucleus pulposus, which had herniated through a defect in the annulus fibrosus.¹

Prior to this work by Schmorl, small, localized tumefactions extending into the ventral portion of the spinal canal had been observed and were considered to be neoplasms. These "neoplasms" were reported by various authors as chondroma, enchondroma, and fibrochondroma.¹ Steinke, in 1918 collected 330 spinal tumors from the literature, including Frazier's unpublished cases, and found six enchondromas, two of them cervical, three dorsal, and one lumbosacral. Between 1921 and 1929 other chondromas in this location were reported by Clymer, Mixter and Mella, by Adson and Ott; and by Elsberg. Elsberg had already reported 15 cases of chondroma of the spinal cord in 1913, in a paper based on 60 laminectomies for spinal disease. At this time he clearly pointed out the similarity between these supposed tumors and certain parts of the intervertebral disc.

In 1911, Pearce Bailey, attending physician to the New York Neurological Institute, and Louis Casamajor, chief of clinic, New York Neurological Institute, reported five cases of osteoarthritis of the spine which had caused compression of the spinal cord and its roots. Their case 1 was typical of the report.²

"Paraplegia dolorosa of 3 years duration. Osteochondritis—twelfth dorsal vertebra. Operation. Recovery.

A 40-year-old single American driver was admitted to the New York Neurological Institute service of Dr. Bailey on March 29, 1910. Family history negative. Patient denies all venereal infection. Is a moderate user of alcohol and tobacco. Four years ago had an abscess on the chest which is now healed.

Present illness: Three years ago, patient began to have pain in the lower part of the back, coming on in attacks, and which radiated down the legs. At first it was worse at night, and often interfered with sleep; it was also worse in damp weather. It was increased by movement such as sudden jars, defecation, walking, etc., and was always worse on the left side. This pain persisted without marked change for about two years. During the past year it has become more severe and especially pronounced in the left leg, which has also become weaker, and recently, there has been difficulty in walking on account of the pain. At no time, has there been disturbance of the bowels or bladder. Erections frequent and painful.

The attitude is striking. In sitting, the patient sits rather forward on his chair with the back held stiff. He walks with difficulty, the body bent forward, the legs flexed somewhat at the knees, walks with short steps, gives constant expression of pain, and is unwilling to walk far.

Examination shows marked rigidity of the whole dorso-lumbar spine with distinct tenderness to pressure over the lower part of it with point of greatest tenderness over the second lumbar vertebra. There is tenderness on deep pressure over both sciatics. The legs show neither paralysis nor atrophy, though there is great interference with muscular power on account of the pain. The right knee jerk is lost. The left is diminished. The ankle jerks are present with the left greater than the right. There is neither clonus nor Babinski. Abdominal reflexes are all normal. Electrical reactions in the muscles of both legs are normal. There is hypesthesia and hypalgesia from the level of the dorsal twelfth distribution down. No disturbance of thermic sense except perhaps at the upper level of the sensory lines.

The urine is normal. The systematic examination of the blood and of the spinal fluid is negative.

The long and painful history in this case, the anesthesia and the interference with the knee

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jerks, and the disturbance in the center for erection, led to a diagnosis of irritative compression of the spinal cord in the neighborhood of the twelfth dorsal segment. The existence of an extramedullary tumor seemed probable, but no tumor was found at operation."

On April 2, 1910, Dr. Elsberg performed laminectomy removing the spines and laminae of dorsal 10, 11, 12, and lumbar 1 and 2. The laminae and spinous processes of dorsal 12 were found thickened, abnormally soft, and grayish in color. Pathological report of the bone removed showed a chronic osteochondritis with new bone formation. The dura was slightly congested but was otherwise normal, and the cord appeared normal. The relief of pain from this operation was almost immediate. Within a few days the patient complained of only slight pain, and could move the lower limbs freely and by April 28, when the patient was discharged from the hospital, there was no longer any pain, the anesthesia had disappeared except as indicated on the chart, and the patient walked freely. Both knee jerks were absent at this time and the right sciatic nerve was still tender to pressure.

When the patient was reexamined on May 18, 1910, he walked erect, without peculiarity of gait, without discomfort, and with only slight soreness in posterior side of right thigh, "as if he had been beaten there with a stick." This sensation is not present all the time, but comes irrespective of motion or rest. He still has painful erections. The knee jerks are still absent. On May 24, 1910, the patient was reexamined and both knee jerks were found to be present and equal. The last report, Jan. 2, 1911, was by letter from the patient, who is in California in the horse business; "rides 30-40 miles a day on horseback and feels perfectly well."

After reviewing these five cases, Bailey and Casamajor concluded the primary pathologic process was a thinning of the intervertebral disc. As a result of this change, the vertebral bodies abutting this disc, being without their normal protection, were readily traumatized, and the end result was a bony overgrowth. When this overgrowth occurred posteriorly, the spinal cord and its roots were compressed, and varying degrees of paraplegia and radiculitis ensued.¹

A landmark in the clinical understanding of lesions of the cervical intervertebral disc occurred in May 1927, when Byron Stookey, of the New York Neurologic Institute, read his paper enti-

itled "Compression of the Spinal Cord due to Ventral Extradural Cervical Chondromas" to the 53rd Annual Meeting of the American Neurological Association at Atlantic City, New Jersey.³ Stookey's description of the clinical findings in relation to the anatomic location of the lesion has never been improved upon. He described three main syndromes: the syndrome of bilateral ventral pressure, the syndrome of unilateral ventral pressure, and the syndrome of root pressure. Despite the title of his paper, which referred to cervical chondromas, it is clear, when the description of the surgical specimens is read carefully, that he understood that these supposed tumors were actually not true neoplasms, since all the microscopic sections showed adult fibrocartilage. Had Stookey had the benefit of Schmorl's studies, which were to be published within the next several months, he would undoubtedly have recognized the true nature of the lesion he was describing, and the field of intervertebral disc surgery would have opened up six years earlier than it did.¹

As early as 1913, Elsberg had called attention to the similarity between so-called chondromas and certain structures of the intact intervertebral disc. In 1928, Alajouanine and Petit-Dutailis recognized that the masses in the lumbar spinal canal which had formerly been called chondromas were really made up of displaced nucleus pulposus from the intervertebral disc, and thus were similar to the *knorpelknotchen* described by Schmorl. This report is apparently the first attempt to correlate clinical findings with Schmorl's pathologic studies.

This same concept had been considered by Goldthwait 17 years earlier, whose arguments, though theoretic, were based upon a case in which sciatica developed after trauma, and was followed by paraplegia. It was Goldthwait's idea that as the result of the trauma, the substance of the intervertebral disc might cause compression of the cauda equina. When Cushing operated on this patient, the only positive finding was a considerable narrowing of the osseous canal at the lumbosacral junction. The anterior epidural space was not explored, and the cause of the narrowed canal was never determined, but the history of the case was so characteristic that Goldthwait later reported it as an instance of ruptured intervertebral disc.

In 1934, Mixter and Barr published their classic paper, "Rupture of the Intervertebral Disc

with Involvement of the Spinal Canal.”⁴ This paper recorded their observations upon radicular compression as a common cause of sciatic pain. When they pointed out that the compression results from pathologic changes in the intervertebral disc, they constructed a scientific basis for an understanding of this condition. These authors are usually remembered for their contribution to knowledge of the lumbar disc syndrome, but 4 of their 19 original cases were instances of cervical disc disease. This group was enlarged a year later by Mixter and Ayer, who described seven cases of cervical cord compression and one case of radiculopathy due to ruptured discs.⁴

Isolated cases of spinal cord compression by ruptured discs had, however, been reported at least a century earlier. One of the first detailed pathologic accounts was given by Key in 1838, who described two cases of spinal cord compression due to a “projection of the intervertebral substance, or rather the posterior ligament of the spine, which was thickened and presented a firm ridge which lessened the diameter of the canal by nearly one third.” In 1892, Horsely performed a cervical laminectomy for paraplegia that had evolved over a period of two months, having been precipitated by trauma. A “transverse ridge of bone” was found to be compressing the spinal cord at the level of the 6th cervical vertebra. This was undoubtedly a cervical spondylotic ridge. The patient made a slow but steady recovery, and a year after his operation had recovered completely, according to a report by Taylor and Collier.⁴

Prior to Mixter and Barr’s classic paper in 1934, between 1892 and 1934, the medical literature contained many isolated instances of the neurologic sequelae of disc disease, but most surgeons operated only for spinal cord or cauda equina compression. Extensive studies of normal and pathologic intervertebral discs begun in the 1920s by Schmorl and carried on by Junghanns and Beadle eventually demonstrated that the nucleus pulposus could rupture through the vertebral cartilage into the vertebral body or spinal canal.⁴

Peet and Echols were probably the first to suggest that chondromata were protrusions of the intervertebral disc. They reported two cases of herniation of the nucleus pulposus, in one of which the cervical spinal cord was compressed.⁴

Following this groundwork, the neurologic and neurosurgical literature concerning the cervical

disc syndrome proliferated. Previous syndromes, such as the cervical rib syndrome reported by Adson and Coffey in 1927,⁵ and the scalenus anticus syndrome of Naffziger, were clarified. Semmes and Murphy, Michelsen and Mixter, Bucy, and Chenault presented evidence that protrusions of the intervertebral disc could be responsible for well defined syndromes of radiculopathy involving the cervical nerve roots.

On Nov. 15, 1941, the now classic paper by Semmes and Murphey, entitled “The Syndrome of Unilateral Rupture of the Sixth Cervical Intervertebral Disc with Compression of the Seventh Cervical Nerve Root, A Report of Four Cases with Symptoms Simulating Coronary Disease,” was read before the American Academy of Neurological Surgery, in San Francisco. The paper was released for publication by the War Department Manuscript Board and was published in the *Journal of the American Medical Association*.⁶ This paper argued against the current concept of cervical disc disease, which was that most ruptured discs in the cervical spine produce either bilateral or unilateral cord pressure and that discs causing nerve root symptoms alone are very rare. Semmes and Murphey believed that exactly the reverse was true: that an undetermined number of patients with pain in the precordium, shoulder, and arm who heretofore were thought to have coronary thrombosis, angina pectoris, arthritis of the cervical spine, brachial plexus neuritis and neuralgia, bursitis, scalenus anticus syndrome, cervical rib, or discogenic disease, will be found to have a rupture of one of the lower cervical discs.

Semmes and Murphey reported four cases, three of them men and one a woman; two patients were physicians. In all cases, pain was on the left side and duration of symptoms varied from seven years to three weeks. Three patients complained of definite numbness and weakness in the index finger and slight numbness in the middle finger.

Examination showed severe muscle spasm in the neck and shoulder. The neck was held rigidly and abduction of the neck from the side of the lesion caused an exacerbation of the pain, while traction on the head relieved the symptoms to some extent. In each patient there was an exquisitely tender point just posterior to the scalenus anticus muscle over the exit of the 7th cervical nerve from the spinal canal. There was also a point of tenderness over the painful area in the

rhomboid region. In three cases, pronounced hypesthesia and hypalgesia were found over the entire index finger, which extended to the metacarpophalangeal joint. In these same three cases there was slight reduction of sensation in the middle finger. In one case no objective sensory disturbance was found. In three cases there was weakness in the movement of the index finger, particularly in flexion. The reflexes were normal in all cases and there was no evidence of muscular atrophy. There were no findings in any case suggestive of spinal cord pressure, although one patient had a conditional tremor in the opposite hand, which is still unexplained.

X-ray examination of the cervical spine showed a straightening of the cervical curve in each instance, and there was no evidence of hypertrophic arthritis in any of these cases at the beginning of symptoms.

Lumbar puncture was performed on all four patients. The total protein was increased in two and was normal in two patients, but the dynamics of the fluid were normal in all four.

The diagnosis of this condition was made solely on the basis of the history and physical findings. No contrast medium in the spinal canal was used by Semmes and Murphey, although in one case, iodized poppy seed oil had been injected elsewhere with negative results. In this case and in one other, the ruptured disc was so far out in the intervertebral foramen that the nerve alone was compressed, and contrast medium could not have shown these lesions, but in a third case there was some slight indentation of the dura, which might have produced a filling defect.

The operative procedure was carried out under local anesthesia. The lower cervical laminae on the side of the lesion were exposed and the involved nerve root was identified by the patient when gentle pressure was applied on the ligamentum flavum, reproducing the exact pain. In each instance, the ruptured disc was found directly beneath. This test was made before any bone was removed, eliminating the necessity of exploring several interspaces. A small portion of the adjacent laminae was removed and the interlaminar portion of the ligamentum flavum was excised. As this was done, the nerve root came into view, pushed up against the ligamentum flavum and flattened out by the nodule of disc. When the nerve root then was injected with procaine hydrochloride all pain was relieved almost instantly. Approximately half of the articular facets and the capsular portion of the ligamentum

flavum were removed and the nerve root was retracted upward or downward, exposing the nodule of disc without difficulty. The loose fragments of fibrocartilage were removed, thus relieving the pressure on the nerve.

Two of the three patients operated on were now relieved completely of their original pain, whereas the third, although relieved of the shoulder pain, still had some discomfort in the arm and occasional pain in the precordium. He stated, however, that this was not nearly as intense as before the operation and believed the operation well worthwhile. The historic case 1 is recorded in the paper.⁶

A white man, aged 41, a surgeon, admitted to the Willis Campbell Clinic on August 2nd, 1933, complained chiefly of violent pain in the left side of the neck, the precordium, the rhomboid region and the left arm. During the last three years the patient had three very severe cricks in the left side of the neck.

Three weeks before admission the patient had a severe crick in the neck and a few days later experienced intense pain associated with muscle spasm in the left rhomboid region. A short time thereafter an extremely violent radiating pain occurred in the precordium and down the left arm. This pain completely incapacitated him and he spent most of the time in bed, taking large doses of codeine and soluble pentobarbital. One week before admission he consulted an internist because he thought he had a coronary occlusion with an atypical distribution of pain. Complete investigation of the heart, however, failed to reveal any evidence of coronary disease.

The neck was held rigidly and there was considerable muscle spasm in the left rhomboid region. There was definite tenderness over the brachial plexus and over the painful area in the rhomboid region. There was no weakness in the hand nor was there any change in sensation in the arm or fingers. All reflexes were normal.

X-ray examination of the cervical spine showed that it was held in slight flexion but was otherwise negative.

Brachial plexus neuralgia, cervical arthritis, and like conditions were considered.

Injection of procaine hydrochloride into the brachial plexus, head traction, and a Thomas collar were tried with only temporary relief. The pain continued in such intensity that it was impossible for him to continue his practice. Many internists, neurologists, and neurosurgeons in various parts of the country were consulted in the next six or eight months. At one clinic an exploration of the rhomboid region was made, which was entirely negative. During the next three years he spent his winters in Arizona and summers in Wisconsin, where he thought the pain was less severe than at his home in Arkansas. A conditional tremor of the right arm and hand developed during this period. During the winter of 1937 the pain again became almost unbearable and he was referred to yet another neurosurgical clinic for investigation.

Neurologic examination was again entirely negative, but examination of the spinal fluid showed a consistently high total protein of 60 mg per hundred cubic centimeters, and it was felt that there was some pressure on the 5th or 6th cervical nerve root. Intraspinal injection of iodized poppyseed oil was carried out with negative results. The tremor in the right arm was thought to be functional. In 1938 the patient returned to Memphis and a section of his scalenus anticus muscle on the left was carried out without relief of symptoms.

In September 1940, the patient experienced an exacerbation

tion of the pain so intense that he was certain this time that he did have a coronary occlusion. Again investigation of his heart failed to reveal any abnormality. There was no change in the neurologic findings, and the spinal fluid protein was again found to be 60 mg.

X-ray examination at this time showed a very definite narrowing of the 5th and 6th cervical discs with considerable spur formation along the edges of the 5th, 6th, and 7th cervical vertebrae.

It so happened that the patient's return to Memphis for investigation coincided with the admission of case 2 to the John Gaston Hospital. Comparison of the symptoms and physical manifestations in these two cases showed that they were identical, with the exception of the lack of sensory change in the first case. Five days after the removal of the 6th cervical disc in case 2, the 6th cervical disc was explored and a definite rupture of the disc was found and removed. When the 7th cervical nerve root was injected with procaine hydrochloride, the relief of pain was instantaneous; the index finger became almost anesthetic and the middle finger hypesthetic. Some pain in the arm recurred immediately following the operation. The pain in the neck and rhomboid region was relieved entirely and only occasionally did he have any pain in the precordium.

One year after the operation the patient writes that he has felt fairly well during the summer. He still has moderate pain in the arm and occasional pain in the precordium, which is brought on by exertion. He feels that although he is not relieved entirely, the operation has been well worth while. The conditional tremor in the right arm continues and is still unexplained.⁷

Commenting on this original paper years later, Dr. Murphey, in a personal communication, stated there were two mistakes in the original paper: (1) It was stated that a myelogram would not show in a lot of cervical discs. This is not true of the 6th disc, but is true of the 4th disc. (2) The second mistake was that he failed to note the weakness in the triceps and the absence or reduction of the triceps jerk. Of all the findings, weakness in the triceps is the most consistent at this level.

Further papers elucidating cervical disc syndromes were to come from Memphis in following years. In 1946, Josey and Murphey reported "Ruptured Intervertebral Disc Simulating Angina Pectoris" in *JAMA*.⁸ In 1948, Dr. Semmes reported "Lateral Rupture of Cervical Intervertebral Discs" in the *American Journal of Surgery*.⁷ In 1950 Schultz and Semmes reported "Head and Neck Pains of Cervical Disc Origin" at the American Laryngological, Rhinological, and Otological Society.⁹

At this same time another advance was made

by Brain with the distinction between the lateral acute cervical disc protrusions that caused compression of nerve roots in most instances and the chronic protrusions associated with outgrowth of osteophytes (cervical spondylosis) that could be responsible for cord compression.⁴

The introduction of the anterior approach to the cervical spine for disc disease by Robinson and Smith opened an entirely new field for the neurosurgeon.⁴ Special instrumentation for the operative procedure was designed by Cloward, who also broadened its use to include trauma. Many other individuals have made significant contributions to the use of and indications for the anterior approach. Bailey and Badgley developed precise indications for its use to obtain stability of the spine. Myers popularized the technique of complete removal and replacement of a vertebral body for fractures or extensive spondylotic disease. Robertson reported on the anterior cervical discectomy without fusion. The extension of the operative exposure upward to the clivus was proposed by Stevenson, Stoney, Perkins, and Adams.⁴ The transoral approach for the treatment of atlantoaxial dislocation due to odontoid hypoplasia was described by Greenberg, Scoville, and Davey.⁴

The understanding of cervical disc disease and its treatment has come a long way since Vesalius first described the intervertebral disc in 1555. Pioneering names such as Schmorl, Clymer, Stookey, Bailey, Elsberg, Mixter, Barr, Semmes, Murphey, Bucy, Cloward, and many others have made it possible for neurosurgeons to provide better care for their patients.

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Gracilis Myocutaneous Flap Reconstruction After Radical Vulvectomy and Posterior Exenteration

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Introduction

Radical vulvectomy and partial or total pelvic exenteration is the accepted surgical treatment for advanced (stage III and IV) vulvar malignancy. Although salvage rates are reasonable,¹ wound complications with primary closure are distressingly high, ranging from 75%² to 100%³ in reported series. These complications consist of necrosis, dehiscence, and infection, and greatly increase the morbidity, hospital stay, and cost associated with the procedure. We present a case where bilateral gracilis myocutaneous flaps were employed for primary vulvar reconstruction and repair of the perineal defect with good results and no wound complication.

Case Report

A 46-year-old white woman with a complaint of a painful sore on her labia for four months was found to have a 5-cm ulcerated lesion arising at the position fourchette and extending to the anal verge. The rest of her examination was within normal limits and laboratory and radiographic studies suggested no metastatic disease.

Because of tumor involvement at the anal verge the lesion was judged stage III ($T_3N_0M_0$); with no evidence of metastasis she was a candidate for extirpative surgery. She underwent posterior pelvic exenteration, radical vulvectomy, and primary vulvovaginal reconstruction with bilateral gracilis myocutaneous flaps. Fig. 1 shows the specimen with vulvectomy and exenteration contents en bloc, and Fig. 2 shows the resultant perineal defect with gracilis flaps outlined. The entire defect was covered without difficulty and the donor sites closed primarily (Fig. 3). Pathologic findings included tumor invading perineal muscle but no distant disease. The patient's post-operative course was without complication except for urinary incontinence which required a foley catheter. All of her wounds healed primarily and she was discharged in good condition ten days after surgery. The patient continued to do well, with a good result of the vulvar and perineal reconstruction (Fig. 4).

Due to the length of the original procedure, inguinal node dissection had not been performed and was recommended to the patient at this time, but she declined further surgery, and subsequently received a course of 5,000 rads to her inguinal area, which she tolerated well. She also declined a urethral sling procedure for her incontinence. One year after surgery, she developed a recurrence of tumor on her buttock at the incisional margin. Over the next six months she pursued a downhill course and died of urinary obstruction from recurrent tumor.

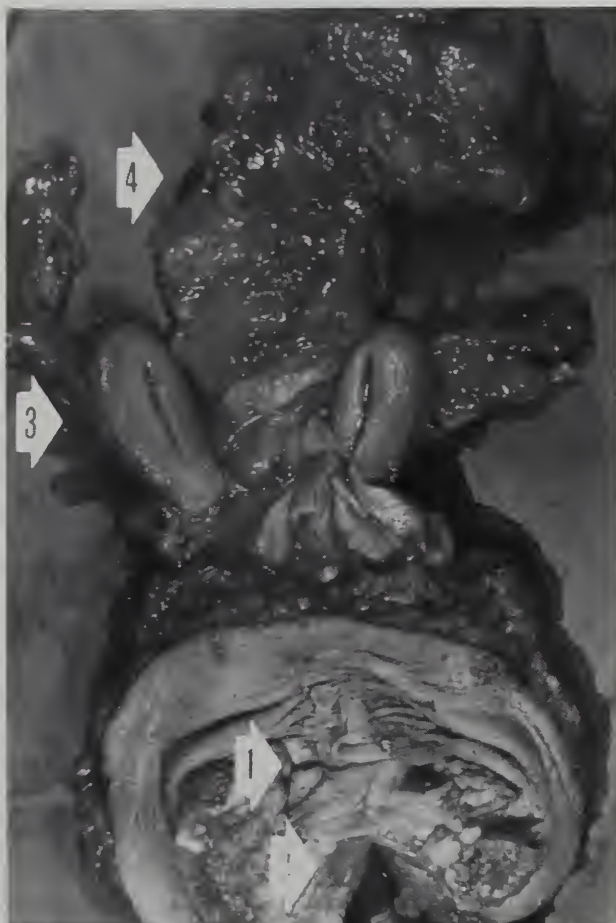


Figure 1. The en bloc specimen showing verrucous perineal lesion in relation to (1) vaginal introitus and (2) anal verge. Uterus, tube, and ovary (3) and sigmoid colon (4) are noted.

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Figure 2. The perineal defect and outlines of gracilis flaps. Note that flap margins extend proximally to vulvectomy incision.

The technical aspects of elevating the gracilis flap have been well described elsewhere.^{4,6} This procedure differs from vaginal reconstruction in two aspects. First, no subcutaneous tunnel is formed at the perineum to pass the pedicle through, since skin all the way to the vulvectomy incision is mobilized for coverage (Fig. 2). Because of this the entire flap could be elevated and advanced anteriorly, making this a combined advancement-rotation flap. Secondly, the flaps are thus not rotated as much, being aligned in a "side to side" position with long axis anterior-posterior rather than "end to end," and rotated into the pelvis in a superior-inferior axis. This does not give as much vaginal depth, but covers large perineal defects well. The vaginal introitus was thus created, and increased depths could be created easily with a secondary procedure utilizing a skin graft.

The circulation of the flaps was scrutinized before use with fluorescein dye injection and a Wood's lamp. A two team approach was employed and the en bloc posterior exenteration and radical vulvectomy, sigmoid colostomy, gracilis flap elevation and perineal reconstruction was performed in less than 11 hours.

Summary

Radical vulvectomy and pelvic exenteration is accepted salvage procedure for advanced vulvar



Figure 3. Completed reconstruction and primary closure of donor sites.



Figure 4. Follow-up view three months after surgery. The flaps continued to diminish in bulk gradually with muscle atrophy, providing better cosmesis but retaining adequate padding.

malignancy, but the wound complications are legion and result in greatly increased morbidity and hospital stay. We presented a case employing primary vulvovaginal reconstruction with gracilis myocutaneous flaps that is remarkable for the lack of wound complications and brevity of hospital stay. We suggest gracilis flaps be employed routinely for this extirpative procedure. 

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Freestanding Emergency Medical Care Centers

At the 1981 Interim Meeting, the House of Delegates referred Resolutions 27 and 64 to the Board of Trustees who assigned them to the Commission on Emergency Medical Services for study and comment. Resolution 27 requests the AMA to establish an Ad Hoc Committee to study freestanding emergency care centers and Resolution 64 asks the AMA to define a true emergency medical center and establish criteria for its operation. Resolution 42, adopted by the House of Delegates at the 1982 Interim Meeting, called for submission of the study on freestanding emergency medical care centers for consideration at the 1983 Annual Meeting of the House of Delegates. In response to these resolutions, this report contains information on freestanding emergency centers and proposes initial criteria for their operation. This material is a result of the review conducted by the Commission's Task Force on Freestanding Emergency Centers.

Background

Freestanding "emergency" medical centers are known under several other names, such as emergencenter, emergency care clinic, minor emergency center, urgent treatment center, and freestanding emergency department. Such centers are a relatively new type of health care facility that has experienced rapid growth in the past decade. The first center was established in Delaware in 1975 and figures provided by the American College of Emergency Physicians and the American Hospital Association in 1982 indicate that there are, conservatively, more than 350 in operation today, and that the number of these centers is growing rapidly.

There are as yet no uniformly accepted criteria and guidelines for the establishment and operation of freestanding emergency centers. The comprehensiveness of emergency services provided, the mix of primary care services with emergency care, ownership, institutional affiliations, staffing, and method of financing vary significantly. In the absence of uniform criteria, efforts to determine the actual number of these clinics or to evaluate their capability of providing care in actual emergencies are extremely limited.

Two types of freestanding emergency centers have been identified: independent centers and hospital or hospital associated centers. The independent centers are generally regarded as physicians' offices and are treated as such for purposes of licensure, certificate of need requirements and third party reimbursement. On

the other hand, the hospital sponsored or associated centers may be covered under a hospital license, subject to certificate of need requirements, and may be reimbursed as an institutional service by third party payors. Private insurance and self pay are the principal sources of reimbursement for these centers with Medicare, Medicaid, and Workmen's Compensation making up a rather small proportion of the remaining sources.

The Commission on Emergency Medical Services is concerned that the use of the term "emergency" in the title or description of a medical practice or a hospital center without maintaining specific emergency capabilities is not in the public interest since needed critical emergency service may be delayed.

It is the patient who first decides what constitutes an "emergency" regardless of whether the physical or mental condition is of an urgent, life or limb threatening nature. Emergency care is for the patients' benefit and they have the right to expect that an emergency facility will provide prompt and adequate medical evaluation and treatment of both acute and non-critical "emergencies." The Commission on Emergency Medical Services firmly believes the optimal provision of emergency care requires prompt physical access to the immediate resources of the hospital and that a freestanding emergency center without such access may delay definitive care of critical emergencies. However, it recognizes such a position does not respond to the House of Delegates request to define and develop criteria for the operation of these clinics, nor does it address the concern over possible misrepresentation by some clinics already in existence or being established.

Accordingly, the Commission has undertaken the initial development of operational criteria for freestanding emergency centers. The Commission emphasizes that these criteria are intended only to apply to emergency centers and not to affect the development of "convenience" or "access" clinics that are the equivalent of physicians' offices.

Freestanding Emergency Medical Care Centers Operational Criteria—Initial

In this section, the Commission on Emergency Medical Services proposes initial criteria to aid in determining whether a practice can truly offer a full range of emergency medical services.

The Commission does not believe there will be many freestanding "emergency" centers that will meet the criteria for true emergency care. However, it does be-

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lieve the following initial criteria are sufficient to identify those centers that may be involved in the regular care of patients with critical emergencies.

1. *Hours of Operation*

Freestanding emergency medical care centers should be operational 24 hours a day, 7 days a week, 365 days a year to assure continuous public access.

2. *Staffing and Medical Direction*

- A. There should be qualified physician(s), registered professional nurses, and other personnel trained in emergency care on duty with other ancillary personnel as needed for the function of the freestanding emergency medical care center.
- B. Staff should have special competence in the diagnosis and immediate stabilization of patients with acute emergencies.
- C. There should be a physician medical director of the center responsible for medical policies and staff qualifications.
- D. A qualified physician(s) and other personnel trained in emergency care should be present within the center during all hours of operation.

3. *Relationship to the Emergency Medical Services System*

The freestanding emergency medical care center should be integrated into the local emergency medical services (EMS) system, where one exists, with its role and functions clearly identified in the local EMS plan and coordinated with other emergency facilities in the area.

To determine the role of a freestanding emergency medical care center in the local EMS system, consideration should be given to the time and distance from the center to the nearest appropriate hospital(s) identified in the EMS plan. Triage of ambulance patients to and from the freestanding emergency medical care centers should be under the "medical control" of the EMS system. In this context medical control means the prearranged physician direction and supervision of personnel, facilities, and equipment for the effective and coordinated provision of medical services to a specified area under emergency conditions.

4. *Ancillary Services and Equipment*

The freestanding emergency medical care center should have at least the following:

- A. Laboratory on premises, with at least the following capabilities—CBC, UA, electrolytes, blood sugar, arterial blood gases, pregnancy test, BUN, and/or creatinine.
- B. X-ray with on-premises processing with specialty review of diagnosis.
- C. EKG—12 lead—with specialty review of diagnosis.
- D. Monitor/Defibrillator—stationary or portable.
- E. Monitor/Defibrillator—portable for transport and backup.
- F. Crash cart with full advanced cardiac life support capabilities and necessary intravenous fluids.
- G. Appropriate trays and equipment for accessing

the airway, pericardiocentesis, needle thoracotomy, transvenous or transthoracic pacemaker, venous access, gastric lavage.

H. Oxygen.

I. Suction.

J. Pneumatic anti-shock trousers.

K. Dedicated telephone line to the closest appropriate hospital emergency department and/or two-way communication with the EMS medical control system.

5. *Protocols*

The freestanding emergency medical care center should have written protocols for the stabilization and transportation of patients requiring hospitalization or other more definitive care unavailable in the center.

6. *Private Physician Referrals*

The Center should arrange for referral and report to a patient's physician, if he or she has one. The freestanding emergency medical care center should also have adequate arrangements for patient referral to medical specialists for follow-up or admission as appropriate to ensure prompt and effective treatment.

7. *Medical Records*

The freestanding emergency medical care center should maintain an adequate medical record for each patient and these records should be reviewed periodically by the medical director or his designee.

Arrangements for transmitting medical records to other requesting physicians should be provided.

8. *Payment for Services*

The freestanding emergency medical care center should make available emergency medical services regardless of the patients' ability to pay for such services.

To help assure adequacy of care in meeting public expectations of freestanding emergency medical care centers, the Commission on Emergency Medical Services recommends use of these initial criteria to determine whether a center can be considered able to provide "emergency" care.

The Commission further believes that public expectations of the range of services available from freestanding ambulatory centers is better met when use of the term "emergency" is confined to facilities offering a level of care consistent with these criteria.

Conclusion

The Board of Trustees commends the Commission on Emergency Medical Services for its review of the freestanding emergency medical care center question and the preparation of this report. The Board and the Commission will continue to study the appropriateness, quality and cost considerations in the provision of services by freestanding emergency medical care centers and will report as necessary to the House of Delegates.

The Board of Trustees recommends that this report be adopted in lieu of Resolutions 27 and 64 (I-81).

The Diminishing Family and Its Impact on Health

Substitute Resolution 55 (I-81), adopted in lieu of Resolutions 24 and 55, called upon the AMA to gather information on the diminishing family unit and effects of the decline of the family unit on the physical and mental health of the American people.

The Board of Trustees directed staff to accumulate and examine data and information on changes that have occurred in family patterns and life situations, with particular reference to issues of child abuse and neglect, divorce, maternal employment, teenage pregnancy and one-parent families. The Board also requested that the staff's analysis be reviewed by the Panel on Child Abuse of the Council on Scientific Affairs.

The following report is based upon a staff assessment of the scientific literature and discussions and correspondence with authorities in the field, and includes modifications recommended by members of the Panel on Child Abuse. The panel recognizes that this is a diffuse subject with numerous ramifications that science has not yet elucidated. During the course of its ongoing activities, the panel expects to address many aspects of family life as they relate to the abuse and neglect of children.

The Board of Trustees believes that this report, given the current state of knowledge, represents an appropriate response to Substitute Resolution 55 (I-81).

Introduction

The literature is replete with studies of family dynamics, family roles, parent-child relationships, marital adjustment, the changing family structure and the historical transitions that families have undergone.

Yet, there is little reliable information on the impact of the changing family on health, with the notable exception of the effects of divorce on children. One of the reasons for this gap is the paucity of baseline data against which effects might be ascertained and measured. Another reason is the difficulty of separating out family change from other social changes and a myriad of biological, psychological and social factors that influence health status.

It may be assumed that the health and well-being of children, for whom the family is the primary and omnipresent social unit, are inevitably affected, both directly and indirectly, by alterations in the pattern and quality of family life and by the behavioral consequences of these alterations. Some studies do implicate disordered family interaction in exacerbating symptoms of certain psychosomatic illnesses. And most

researchers agree that family stress and disintegration have critical implications for the emotional health of children.

Families in Perspective

In March 1981, of the 60.3 million American family households, 81.7% were married couple families, 3.2% were headed by male householders with no wives present, and 15.1% were headed by females with no husbands present. In 1980, half of married couples surveyed had children under age 18. Among white families, 82.7% of children lived with both parents, contrasted with 42.2% of black children and 76.1% of Hispanic children. By age 39, over 90% of American men and women are or have been married, but in 1981 a record high of more than one million divorces were granted. In each divorce, an average of one child is involved. If present trends continue, almost half the children born in 1981 will live some time in a single parent home by age 18.¹

According to Grotberg, the six most prominent family structures and the percent of total families in each are: single career family, 13%; dual career family, 16%; single parent household, 16%; remarried nuclear family, 11%; the kin family, 6%; experimental families, 4%.²

"We may anticipate that by 1990, 44.8% of mothers with children under 6 will be employed outside the home," writes Zigler, director of the Bush Center in Child Development and Social Policy.³

The family can be seen as "diminishing" in the sense of becoming smaller in size. When the United States was largely agrarian the usual family home was multigenerational. Later the two-generation household with extended family nearby was typical in urban communities. The nuclear family became more prominent when grandparents, uncles and aunts moved away from the immediate environment or, more often, when the nuclear family moved, either to suburbia or another part of the country. Today single-parent households, and households where both parents work, effectively reduce family size further. By 1980, only one of 17 families displayed traditional family roles and structures.¹

It is difficult, however, to generalize about family size. The "average" family really does not exist. American families have always varied in make-up, ages, number of children, education, income, health status and housing. Families are not necessarily smaller today than they were ten years ago. In fact, depressed economic conditions and a dearth of available housing have recreated the multigenerational unit in cities throughout the country, posing both new opportunities and new hazards for family living.

Perhaps, more to the point, the family may be seen

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as "diminishing" in the sense of having become less influential, or relatively less influential, than other social institutions, on the values, attitudes and behavior of children. Peer pressures and the predominance of television are two examples of other powerful forces at work. In effect the family can be viewed as "diminishing" in stature. No longer the largely self-sufficient entity it once was, the family has steadily given way to other authority figures and role models—in religion, in education, in sports, in government.

Observers have varying viewpoints concerning the implications of such change:

Caldwell, a member of the National Advisory Committee for the 1980 White House Conference on Families, says that "... current concerns about the viability of the family as the primary social unit for human development are indeed valid."⁴

Rice, general director of the Family Service Association of America, writes, "I must take issue with the premise that the family unit is declining. . . . Historical analysis has tended to suggest that the functions of families have tended to change and in the process, Americans expect more from their family life."⁵

Hersh, child psychiatrist at the Medical Illness Counseling Center, notes that "these changes have a great deal to do with a very different level of involvement and sense of responsibility about being parents and parenting."⁶

Skolnick, research psychologist at the University of California (Berkeley) says, "The idea that the family today is in an unprecedented state of crisis or collapse is not well-founded."⁷

Gerbner, dean of the Annenberg School of Communications, believes that the principal contribution of family-focused studies has been to portray the romantic and mythical nature of "traditional" views of family life: "Theories about the disintegration of the family, or the decline of the significance of the family . . . are based more on fiction than on fact, and tend to exploit (and thus to exacerbate) public anxieties and insecurities."⁸

Simmons, director of the Department of Psychiatry, Indiana University, does not think that the large percentage of children who do not "get proper nutrition, abuse drugs and suffer other ills are the result of changes in the family." Although rejecting the use of the term "decline," Simmons believes that changes must be acknowledged and dealt with, while at the same time striving toward the ideal of strong and solid family.⁹

Hauerwas, of the Department of Theology, University of Notre Dame, writes that "... medicine is being asked to operate in an almost impossible situation where its care of children cannot presuppose any firm moral framework that at one time was based on the value of the family." He believes that the "problems of the family in our society are not the result of forces that are inherently antifamilial, that rather so-called breakdown or crisis in the family is the result of some of our most basic and cherished values associated with political liberalism."¹⁰

An emerging view is that neither the developing child nor the family exists in isolation but rather that each is affected by virtually every institution in society. "Empirical evidence suggests that whether rich or

poor, America's families are quite heterogeneous. Some provide excellent terrains for children's growth and development, some literally an impossible environment for development," according to Keniston and the Carnegie Council on Children, who are forceful on one point: "What a child is, what a child becomes, are much more than a consequence of strict or permissive child-rearing. A child is influenced by many institutions over which parents have no control, from the state of the economy, to the length of the work day, to the availability of decent health care."¹¹

Health Effects of Changing Family Patterns

Data on juvenile morbidity are deficient largely because of the nature of today's childhood illnesses and the varying utilization of health services. Illness of limited duration and low intensity may not come to the attention of health providers.

Although changes in health status of children and adolescents have been seen to occur concomitantly with changes in family living, no direct causal relationship can be established.

There has been, for example, a marked increase in recent years of disorders associated with life style—obesity stemming from inactivity and poor nutritional practices; abuse of alcohol and other psychoactive drugs; sexual promiscuity and sexually transmitted diseases; and child abuse and neglect. Lockart, the director of the Department of Health Care and Pediatric Practice at the American Academy of Pediatrics, refers to these disorders as the "new morbidity," replacing as public health concerns infectious diseases and frank malnutrition, both former leading scourges. These diseases are more difficult to treat than the old diseases "... even though I am not sure that all these changes can be blamed on the 'decline of the family unit.'"¹²

Undoubtedly, the waning of positive aspects of family life and parental guidance has had an effect on these disorders. But whether it has been *the* major, or even *a* major, factor is not known. Certainly, other factors, such as economic circumstances, are involved. Poverty is the greatest single predictor of poor health in the population as a whole, and with life-style disorders incidence is higher among children and adolescents from low-income families.² Complicating the picture is that many disadvantaged families are also "diminished" families, either in size (one-parent) or in beneficial influence.

What is more clear is that life-style disorders tend to be familial disorders, involving parents as well as children and persisting from one generation to the next. Thus it is that unwed pregnancies, especially among adolescents, are both a result of changes in sexual mores and practices and a contributor to perinatal deficits chiefly through lack of prenatal care. And children who are subject to abuse or neglect by their parents may repeat this behavior pattern when they themselves become parents.

Single-Parent Families

Most research focuses on the single-parent family as pathogenic, and fails to take into account the positive family functioning and competence that are pos-

sible when support systems facilitate the development of social, emotional and intellectual competence for children in that family situation. Single-parent families, in other words, are not necessarily detrimental to the health of children, although there is some evidence that a child's emotional well-being and behavior often are affected adversely.

Perhaps the highest risk is in those families where single-parenthood arises from children born out-of-wedlock to teenagers with meager financial resources. Each year, one million teenagers become pregnant, many unintentionally, and in 1980 nearly 300,000 out-of-wedlock births resulted.¹³

Evidence shows that childbearing out-of-wedlock is more likely among poverty than among higher income populations. Under age 20, complications of pregnancy and delivery, as well as the risk of an unhealthy baby, are greatest. Experts generally believe the causes are partly the immaturity of the young mothers, but a recent study in Copenhagen found that teenage mothers given proper care had the least complications in childbirth.¹⁴ This study indicates that the high-risk status of some pregnant teenagers can be due to societal rather than biological conditions.

In any event, fewer than 20% of single-parent families are headed by unwed mothers.¹³ The others have been created by separation, divorce and widowhood.

In any single-parent situation, however, the child has little or no opportunity to experience an ongoing bond between two adults in intimate family living. From the developmental point of view, this lack is probably the greatest detrimental influence of single parenthood on children.¹⁵

Clinical psychiatric problems of children in single-parent families are mediated to a large extent by the nature of the mother-child relationship. For example, the mother may "keep" her child for several months or even years and then put him or her up for adoption. The child has thereby been used as a test of the mother's desire to take on the mothering role, and then discarded. Some unwed pregnancies, similarly, are accepted by young women to gratify a wish to "be a mother and have a baby to cuddle." When the infant becomes a toddler, the fantasy no longer is fulfilled, and the child may be abused, neglected or abandoned.¹⁵

According to the 1975-76 National Health Interview Survey, children without fathers in the home were twice as likely as children with fathers to be reported in fair to poor health. The proportion of children who had seen a doctor during the year and the number of visits during the year, however, were about the same for both groups of children.¹⁶ (Fatherless children are as likely to receive medical care as children with fathers even though the former usually are poorer, because in many states Medicaid covers poor children without fathers, but not poor children with fathers, in the home.)

Children without fathers were more likely to have been hospitalized and to have spent, on the average, twice as many days in the hospital as children with both parents. Physicians may hospitalize children more often when they know of poor home conditions. Differences, if any, in physical and emotional health status and cognitive development are small, and may be

attributed to low economic and educational levels of mothers and generally poor housing and neighborhood conditions.¹⁶

Mothers Who Work

Day-care for children of working parents has long been controversial in terms of the psychological and developmental consequences of the rearing of young children by parent surrogates. Recently, physical health hazards in day-care centers have surfaced. There is a high incidence of enteric illness associated with unsanitary conditions in some of the facilities developed to meet the child-tending imperatives of families that may have been diminished by economic circumstances or parental vocational pursuits.¹⁸

Effect of Divorce on Children

Families diminished by divorce are increasingly prevalent. The 1.2 million divorces granted in the United States in 1981 were triple the number in 1962, and one in three new marriages, according to current estimates, will end in divorce. Most divorces occur before couples reach their 40s, and in nearly three-fourths of the cases minor children are involved.¹⁹

Adding cases of permanent separation and desertions, about 18 million children in the United States will undergo family dissolution during childhood and adolescence.¹⁹

Furstenberg sees black and white families undergoing different disruption processes. Black children are twice as likely to experience the death of a parent, even though both black and white children have nearly the same risk of family disruption due to separation and divorce.²⁰

Divorce is often mistakenly thought of as a single, discrete event. Divorce is only the crisis stage among a spectrum of stages involving pre-divorce parental strife and post-divorce stress and adjustment as well. Rabin and Swenson, for example, report on three adolescent patients who attempted suicide at the time of *impending* divorce of their parents.²¹

Hetherington and others agree that the effects of divorce are stressful to both parents and children.²² However, the long-term effects of divorce may be modified by the quality of post-divorce family functioning, maintenance of positive relations among family members, and support services offered to parents and children in the community, schools and workplace. Frequent contact with, and support from, the non-custodial parent can make a difference, as can sustained relationships with members of the child's extended family, especially grandparents.²³

"Furthermore," as Hetherington states, "there is great variability in the responses of adults and children to separation and divorce and to life in a single-parent family." He observes that children from unhappy, conflict-ridden intact families are often more disturbed than children of divorce.²² Evidence suggests that boys have greater vulnerability than girls to the stresses of divorce and post-divorce adjustment.¹⁹

When attempting to assess the effects of family discord, it must be remembered that the situation from the child's perspective may be quite different from the adult's. The most vulnerable children are likely to show continuing psychopathology.

A longitudinal study of 131 children from 60 families involved in divorce has yielded valuable data.²⁴⁻²⁶ A year after separation of parents had occurred, psychological disturbances were noted in about half the children, with little difference in incidence among preschool, early latency and late latency age groups.

Differences were found, however, in the nature of these problems, from group to group. In the youngest group, family disruption brought on "regressions, fretfulness, cognitive bewilderment, heightened aggression and neediness." In early latency, children were still struggling to integrate divorce-related changes in their lives.²⁵ In later latency, children were suffering from shame, fears of being abandoned or forgotten, and intense worries associated with their new sense of vulnerability and dependence on a more fragile family structure.²⁶

A subsequent study of 144 children of divorce has replicated the finding that different constellations of emotional and behavioral difficulties are encountered in different age groups.²⁷

With respect to adolescent children, it is impossible to generalize about the psychological effects of divorce. Reactions will produce differing short-term as well as long-term outcomes. Experiencing parental divorce has been seen to create certain psychological vulnerabilities in affected adolescents: (1) fear of abandonment, rejection or loss of love, (2) an interference with the resolution of the typical adolescent conflicts, and (3) an intense fear of personal marital failure.²⁸ The contemporary trends toward the "good divorce" and the impulsive marital breakup leave the involved youngsters with considerable confusion and disillusionment.

While divorce may be regarded as a positive solution to destructive family functioning, most children experience it as a traumatic period in their lives.²⁹

Family Stress as Risk Factor

Conflicts between parents who stay together rather than separate also can have adverse effects on the mental and physical health of children.

Clinicians who have studied psychosomatic disorders in children have found that regardless of family makeup or specific diagnosis, the children who are most acutely ill are the ones from conflicted family situations.³⁰ Skewed family relations can be a factor in other physical diseases as well, and in time, the disease can become a necessary part of the pattern. Three factors are involved: (1) the child is physiologically vulnerable; that is, a specific organic dysfunction is present; (2) the family is characterized, by enmeshment, overprotectiveness, rigidity and lack of conflict resolution; (3) the child's illness plays a part in the family's pattern of avoiding conflict—serving to reinforce the symptoms. Most of these children fare better when removed from the home if the family cannot be treated in a way that will "reorganize family patterns."³⁰

A survey of more than 3,500 healthy children is reported by Coddington, in which he determined the amount of social readjustment required of each child in the preceding year.³¹ This study yielded baseline values for children of different ages and tested the influence of variables such as age, sex, race, and socioeconomic status (SES). No differences were found

between sexes, races or SES, but fewer adjustments occurred in a year for young children than for older ones. More social adjustment was required of black elementary school children, but the situation was reversed in junior and senior high school. Several rather insignificant events occurring during a given period of time may add up to greater stress than a single, obviously traumatic event.

Incidence of six adverse health conditions in children from birth to age 4 was analyzed in a recent New Zealand study.³² Children from families that experienced 12 or more stressful events were twice as likely as children from families with three or fewer such events to have suffered disorders of the lower respiratory tract, gastroenteritis, burns and scalds, accidental poisoning, other accidents, and suspect home conditions, such as child abuse. The disparity was even greater for hospital admissions, an indication of severity. Children in the high family stress group were six times as likely as those in the low stress group to have been hospitalized.

Why some individuals appear to be more affected by stress than others leads directly to the issue of how individual characteristics of children and the social conditions under which they live interact with stressful events to result in differential effects of stress.

Critchley cites Anthony's model for looking at the interaction of risk and vulnerability.¹⁹ When high risk is coupled with high vulnerability, the prospect for disturbance is high, especially during late childhood, adolescence and early maturity. With low vulnerability, however, there is surprising absence of disorder even in the presence of appalling life circumstances. In spite of environmental factors potentially hazardous to the individual's mental health, a person emerges who is energetic, well-balanced, and normally active and reactive.

The child with good endowment, benign experiences and comfortable environment may still be hypersensitive and unable to construct a meaningful role for himself in relation to his or her surroundings. When low risk is combined with such high vulnerability, the "suburban syndrome" may result: a child who is overprotected, overprivileged and often disturbed. Low risk linked with low vulnerability is characteristic of the "normal child" and is termed the "average child's vulnerability."

This formulation can be a useful framework for assessment and intervention.²⁹ Increased risk plus increased vulnerability as a result of temperament or environment signals increased danger of psychological problems or distress for the child.

Children in foster care are another high-risk group. It has been observed that if a child is neither adopted nor returned to his original family within the first two years of foster placement, he is unlikely ever to leave the foster care system.³³

About half of these children live in more than one foster home, and this unpredictability alone makes them vulnerable to emotional problems. A study of 328 foster children in Baltimore showed a high incidence of psychiatric disorders compared to a general pediatric population. In addition, chronic health problems, both psychiatric and physical, were found in three-fourths of the foster children.³³

Impact on Adults

Although children are the primary concern of those who study family life, families also have influence on adults and presumably on their health and well-being. Studies have shown that divorced and single men have shorter life-spans than married men; however, a causal relationship has not been established.

In a comparison of social network size, perceived social support and stressful life events with physical health status in a sample of 100 persons 45 to 65 years old, neither social support nor stressful life events were associated with physical health.³⁴ Previous studies of bereavement and other life events involving the loss of social ties were associated with depression, negative morale or physical health. This study's finding that none of the social support variables was significantly correlated with physical health status deserves comment since it has been widely assumed that such supports have a positive correlation.

In contrast, another study found social network size to be inversely associated with rates of mortality from all causes in the study cohort.³⁴ The larger the number of social ties, the lower were the mortality rates. It may be the case that persons with very few social ties are at significantly greater risk of physical illness or mortality, while psychopathology is associated with flux in the quality of perceived support.

With respect to the aged, many of the elderly have biochemical deficiencies resulting from poor nutritional status that can stem from poverty, ignorance, physical and mental disorders and social isolation.³⁵ Yet, the popular notion that the aged have been abandoned by their children is not borne out by research. Most older people have at least one child living with them or near them, and they have frequent contacts with their children.¹⁷

Living with children, of course, is not always the most desirable arrangement for older people. Many resist the idea of moving into their children's homes—they have a history of being self-sufficient and prefer to maintain their own households and take care of themselves as long as they can. At the same time, they do want to be able to depend upon their families in time of need, maintaining, as one observer puts it, "intimacy at a distance."³⁶

Conclusion

Housing, employment, financial and legal problems usually are beyond the scope of medical interventions. Moreover, health professionals are limited in their abilities to change adverse conditions under which children and adults who are at risk live, and for whom serious illness is often a consequence. It is well known, however, that problems and conflicts need not cause disease and dysfunction, and that demonstrable benefits to both family functioning and child health can accrue from professional interventions such as family therapy.

How people learn to cope within a family context can be crucial to the attainment and maintenance of good mental health and even physical health. Usually

strengths can be found regardless of the nature of a given family's make-up or circumstances. If these attributes are reinforced, they can then become positive influences for both children and their parents.¹⁵ Curran, for example, has utilized such an approach in outlining an intervention strategy for primary care physicians who encounter divorced parents and their children in clinical practice.³⁷

To help provide beneficial reinforcement is a major challenge for physicians and other health professionals as they work with families of various types pursuing different life styles in the United States today. 

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Peripartum Cardiomyopathy

CHARLES E. KOSSMANN, M.D., Editor

RANDALL C. FREDERICK, M.D.

(Resident Physician)

A 28-year-old black woman came to the labor and delivery suite of the E. H. Crump Women's Hospital complaining of shortness of breath, cough, frothy sputum occasionally blood tinged, subjective fever, and chills which awakened her from sleep. She was previously healthy and had been delivered of her second child vaginally one week earlier. The intrapartum course was complicated by preeclampsia, as with her first pregnancy, but there was no history of hypertension between the births. There was no previous history of heart disease in the patient or in her family, and she did not abuse alcohol.

The patient's temperature was normal, blood pressure 140/110 mm Hg, heart rate 140/min, and respiratory rate 48/min and shallow. She was a well-developed, well-nourished black woman in moderate respiratory distress. There was some retinal arteriolar narrowing. The thyroid gland was within normal limits. There were diffuse rales and ronchi in the lungs bilaterally, but there was no jugular venous distension, and the PMI was not displaced. S₁ and S₂ were normal but a summation gallop was present. There was no cyanosis or edema.

The hematocrit was 35.5% with a white blood cell count of 16,800/cu mm with 6% band-type and 43% segmented neutrophils, 17% lymphocytes and 2% mononuclear cells. Serum electrolytes and a clotting profile were within normal limits. On room air the blood gas analysis showed a pH of 7.45 PO₂ of 67 mm Hg and PCO₂ of 33 mm Hg. The electrocardiogram showed a sinus tachycardia without other abnormalities. The thoracic roentgenogram disclosed a normal sized heart with pulmonary venous congestion suggestive of pulmonary edema.

Immediate therapy consisted of intravenous aminophylline, morphine, furosemide, digoxin and oxygen by mask. Dramatic improvement followed diuresis and full digitalization. An echocardiogram performed on the second hospital day revealed considerable dilatation of the left ventricle (corrected end-diastolic dimension 37 mm/m²—maximum normal 32 mm/m²) with normal wall thickness and impaired systolic function (shortening fraction 10%, generalized hypokinesis). Studies in the hospital of thyroid function, pulmonary ventilation-perfusion by scan, ASL-O titer, FANA, and rheumatoid factor were all negative. The ESR was 25 mm/hr. Before discharge the titers of cardiac enzymes in the blood were found to be normal.

The patient was discharged asymptomatic on digoxin and furosemide with potassium supplementation, but she was noncompliant with medications and had to be hospitalized two more times for congestive heart failure during the month after the onset of symptoms.

The final diagnosis was peripartum cardiomyopathy.

K. B. RAMANATHAN, M.D.

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Pregnancy complicated by heart disease remains a problem in spite of advances in both medicine and obstetrical care. Among 348 maternal deaths in the state of California between 1960 and 1968, 77 were attributed to cardiac disease, the commonest underlying cause being rheumatic heart disease and the second cardiomyopathy, accounting for ten cases. Of the ten with peripartum cardiomyopathy, three were antepartum and seven postpartum.

History

Peripartum cardiomyopathy (PCM) has been known for a long time, Ritchie, from Glasgow, Scotland having given the first description of the disease in 1849. In 1930 Herrmann and King² described the disease in this country, and they were followed by Hull and Hafkesbringer³ reporting from the New Orleans Charity Hospital and Gouley, McMillan and Bellet⁴ from Philadelphia General Hospital in 1937. The disease has been called by various names, including toxic postpartum disease, hypertensive postpartum disease, postpartum myocarditis, and postpartum cardiomyopathy. PCM has been favored lately because the disease tends to occur both during the last trimester of pregnancy and during the early postpartum period.

The criteria for diagnosis were established by DeMakis and Rahimtoola.⁵ They are (1) development of heart failure in the last month of pregnancy or within five months of delivery, (2) absence of a demonstrable cause for the cardiac failure, and (3) absence of demonstrable heart disease prior to the last month of pregnancy.

During normal pregnancy, the cardiac output and blood volume increase significantly and reach their peak at 28 to 32 weeks of gestation. In patients with preexisting heart disease, decompensation tends to occur during this period. Beyond

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32 weeks, the increase in cardiac output tends to be less prominent and almost reaches a plateau. The management of patients with preexisting heart disease becomes easier once they pass the 32nd week. PCM, on the other hand, is unique in the sense that decompensation occurs either in the last month of pregnancy or during the postpartum period when the stress of intrauterine gestation has passed.

Etiology

Race: Most descriptions of the disease in the United States have come from hospitals with a predominately black population such as the Charity Hospital in New Orleans or the Cook County Hospital in Chicago. From abroad the major series come from Africa or the West Indies. Clearly, the black race tends to have a higher incidence of the disease. However, there have been reports from all over the world including Ceylon, South Asia and Japan. Although it was thought that the white population was immune to the disease, this does not seem to be true, as there have been many well-documented reports of its occurrence among Caucasians.

Parity: The disease tends to occur more commonly among multiparous women than among primiparas, although in an early description of the disease Hull and Hafkesbring³ suggested that primiparous women may be more prone to the disease. Among multiparous women, those who get pregnant in quick succession seem to predominate.

Multiple Pregnancies: Women bearing twins or triplets seem more prone to the disease than those with a single fetus.

Toxemia: The incidence of toxemia seems to be high among patients with PCM, although the incidence of sustained hypertension appears to be lower.

Nutrition: Since the disease tends to occur among the economically disadvantaged it was thought that malnutrition might have a role in the development of the disease. Although detailed analysis of the nutritional histories of the cardiomyopathic women in New Orleans revealed inadequate intake, other studies failed to confirm nutritional deficiency as a cause of the disease. Furthermore, nutritional heart disease, like beri-beri heart disease, tends to be of the high output variety, while patients with PCM tend to have a low output type of heart failure.

Hypertension: Although it was suggested by Brockington⁶ from Ibadan, Nigeria that hyper-

tension is more common among patients with PCM, only 8 of his 50 patients had sustained hypertension.

Viral Infection: Among 23 patients studied by the Japanese⁷ a suggestion of viral infection was obtained in a few cases, but similar studies elsewhere in the world failed to substantiate a viral etiology.

Lactation: In South African black women the incidence of PCM was higher among those with a longer period of lactation. It was also observed that when PCM occurred late after delivery there was a delay in discontinuation of lactation.

Alcoholism: The incidence of alcoholism was no higher in patients with PCM as compared to other populations in most studies. However, among the patients studied in Jamaica,⁸ a higher intake of alcohol was observed.

Autoimmunity: Although unproven, it has been postulated that the fetus might develop anti-myocardial antibodies that can cross the placenta and cause myocardial dysfunction. Another proposed theory is that the rapidly involuting postpartum uterus may develop antibodies that cross-react with the heart and cause dysfunction.

Environmental: In an interesting study from northern Nigeria⁹ it was observed that the local custom was to keep the woman during the postpartum period in an isolated hut with a closed-in fire going underneath her bed even though the ambient temperature was high. Further, they were given hot baths and encouraged to consume large quantities of salt. The incidence of PCM among these women is high, especially during the hot humid weather. It has been proposed that lack of evaporation combined with salt intake may be responsible for the higher incidence.

Signs and Symptoms

The clinical presentation is not unique and resembles other forms of cardiomyopathy with combined right- and left-sided heart failure. Most patients complain of dyspnea on exertion, and episodes of paroxysmal nocturnal dyspnea are frequent. Palpitation is uncommon, but hemoptysis is frequent.

Signs are consistent with biventricular failure. There is jugular venous distension and dependent edema. Auscultation reveals an S₃ gallop and murmurs indicative of functional mitral and tricuspid insufficiency are frequent. The murmurs, however, disappear with treatment of the heart failure.

Laboratory Findings

The thoracic roentgenogram usually shows massive cardiomegaly, with a silhouette occasionally suggestive of pericardial effusion. There is pulmonary venous congestion, and not infrequently there are basilar infiltrates suggestive of pulmonary infarction.

The electrocardiogram frequently shows evidence of left ventricular hypertrophy and abnormalities of S-T and T. Left bundle-branch block is uncommon as compared to other forms of cardiomyopathy. Vectorcardiograms are not characteristic, although in one of the patients described in the literature the frontal axis changed during the course of the disease from normal to extreme left, suggesting development of left anterior fascicular block. The echocardiogram displays four-chamber enlargement with reduced fractional shortening and mitral valve excursion. Dilatation of the left ventricle can result in increased separation of E (E point of anterior mitral valve leaflet) from S (left side of interventricular septum). In a case described by Feigenbaum¹⁰ these changes disappeared with improvement in heart failure, demonstrating a reversible form of cardiomyopathy.

Invasive studies have been done infrequently. Right heart catheterization in one patient disclosed an elevation of right ventricular end-diastolic pressure and pulmonary capillary wedge pressure consistent with biventricular failure. There was moderate pulmonary hypertension and a reduced cardiac output.

Morbid Anatomy

Gross examination reveals a dilated flabby heart occasionally showing some hypertrophy. Mural thrombi are frequent, and the valves and coronary arteries are normal.

Histopathology¹¹ shows early muscle degeneration (94%), cellular infiltration (81%), endocardial thickening (50%), and reparative fibrosis (50%). The changes are not characteristic for PCM and could be observed in any other form of congestive cardiomyopathy.

Differential Diagnosis

While obliterative pulmonary hypertension and thromboembolic pulmonary heart disease present isolated right-sided heart failure, PCM shows evidence of biventricular failure. Hypertensive heart failure associated with toxemia of pregnancy does not manifest signs of right-sided heart

failure. Furthermore, the renal abnormalities that occur with toxemia are not seen in PCM, although in one of the published reports death tended to occur more frequently in patients with associated pyelonephritis. Silent mitral stenosis with obstructed left ventricular filling, pulmonary hypertension, and the clinical picture of left-heart failure may be confused with PCM, but such patients ordinarily show circulatory deterioration before 32 weeks of pregnancy; an echocardiogram should demonstrate the characteristic features of mitral-valve disease. Ischemic heart disease is uncommon during pregnancy, but coronary artery dissection has been reported during labor. The characteristic electrocardiographic and enzymatic changes should help to differentiate this rare finding from PCM.

Complications

Arrhythmias commonly occur with digitalization, and it has been suggested that these patients are prone to digitalis intoxication. Intraventricular conduction disturbances occur but do not conform to the standard right or left bundle-branch block patterns.

Pulmonary emboli occur in about 25% of the patients, and it has been suggested that they may be more frequent in PCM than with other forms of congestive cardiomyopathy. Systematic embolization, however, is uncommon.

Treatment

George Burch and his group¹² in years gone by advocated strict bed rest for at least three months after the heart size had returned to normal, but their mortality was not significantly different from that of other groups, and it is generally considered that such prolonged bed rest is neither necessary nor practical.

Patients with PCM may be more sensitive to digitalis, and digitalis-induced arrhythmias are frequent.¹³ When digoxin is needed and is not contraindicated for any reason, careful monitoring should be undertaken to prevent digitalis overdosage.

In studies prior to the availability of loop diuretics, use of mercurials were favored over thiazides because of the kaliuretic properties of the latter. At present, however, loop diuretics, like furosemide, are preferred, combined with potassium supplementation to avoid hypokalemia.

In view of the frequency of pulmonary em-

(Continued on page 33)

The Need for Patient Assessment

CARL E. ADAMS, M.D.

In 1980 the Tennessee Medicaid agency and the legislature were compelled to institute certain austerity measures in order to contain costs, as the expenditures of the Medicaid program had increased so much and so rapidly that a serious budgetary problem was imminent. This program has been successful as a cost containment measure, and now it is appropriate to begin to evaluate needs of and services to patients in addition to continuing to control costs in an effective and efficient manner, while at the same time being assured of appropriate services to those needing them.

At a meeting of the Long-Term Health Care Committee of the Tennessee Medical Association in May 1983, there was a discussion regarding the need for a patient assessment program in Tennessee for determining the diagnoses, disabilities, and impairments of all those receiving health care and medical care as beneficiaries of governmental programs, including Medicare and Medicaid.

It is important to recognize that patient assessment is a two-tiered process. At the first level each discipline, such as nursing, physical therapy, social services, does an individual assessment relative to the discipline involved, while at the second level the pertinent information gathered by each discipline is brought together in the final form, so that in effect there is uniform comprehensive information (socio-demographic) as to who the patient (applicant/recipient) is, the patient's diagnosis, impairments, and disabilities, the patient's treatments, medications, and services, and finally, the outcomes.

Since 1975, HEW (Health, Education and Welfare) and subsequently HHS (Health and

Human Services) have been working with a Patient Appraisal and Care Evaluation (PACE) program. This program has gone through several revisions and adaptations. The latest form, though much shorter than previous ones, continues to be several pages in length; it has not been computerized and is not currently in active use. As the program has been sponsored by HHS it is reasonable to assume that it contains those items considered important to the government.

There are many patient assessment programs and formats presently in existence that might be considered for use. The program selected for use should have uniformity of terms, and should be comprehensive in identifying impairments and disabilities. The form (abstract) should be concise, the data assimilated on the abstract should be capable of being computerized, and it should conform to the requirements of the PACE program. The resulting information and summaries should be available to state agencies, intermediaries, and providers alike.

The information provided by the assessment instrument serves as a guide for decision-making as to entry into the care delivery system; that is, when done on all applicants, it can be the gateway guide for proper placement. Following admission into the care delivery system, periodic reassessments at regular intervals serve to follow the progress of the patient, and serve as a tool for determining need for continued care, change of level of care, discharge, etc. Just as the accounting system serves as a financial audit, the patient assessment system can serve as a medical audit of patient care services.

Through pooling of the information from all of the patients and the different facilities, much useful information is made available through summaries for use in decision-making.

At this time details as to the uses of the information gleaned from the patient assessment sys-

Dr. Adams is chairman of the Tennessee Medical Association Long Term Health Care Committee.

tem will not be discussed, but instead the general broad principles will be indicated. Research projects have available source material for analysis and study of demographics, special problems, and care and treatment profiles. Management and clinical staff has access to common, uniform documented data for use in arriving at decisions regarding both need for care and its type and intensity, staffing as to type and amount, and needs for additional or change in equipment and supplies. The adequacy of reimbursement is better understood. Placement and level of care are

more uniform, and are determined according to needs and services rather than by the available reimbursement. The success of the use of the program and its value will depend on the quality of the input of the information (garbage in, garbage out).

By using patient assessment, patient care, placements, and levels of care are more easily monitored. Also, the quality of the statistical analysis is improved, and the scope of the analysis is broadened through the medical audit of patient care services.

Medical Grand Rounds . . .

(Continued from page 31)

boli, Goodwin and his colleagues¹⁴ suggested that patients with PCM should be anticoagulated. It is not clear, however, how long it should be continued, since PCM is a reversible form of cardiomyopathy. I do not believe anticoagulation needs to be continued once the heart returns to normal size, although patients who have persistent heart failure may require perpetual anticoagulation.

Prognosis

It was not possible from the earlier studies to predict the outcome of patients with PCM. Furthermore, since it is a disease tending to recur with each pregnancy, it is crucial to separate the ones with a favorable outcome from those in whom deterioration is rapid, with spontaneous or induced premature delivery. DeMakis and his group¹⁵ at Cook County Hospital in Chicago followed 27 patients with PCM with serial thoracic roentgenograms. In 14 of the 27 the heart size returned to normal within six months, while in the other 13 enlargement persisted. Eight of the first group had no significant problems with subsequent pregnancies apart from three episodes of temporary deterioration in two. During a follow-up lasting around five years, two patients died of noncardiac causes. On the other hand, out of six subsequent pregnancies in the 13 patients with persistent cardiomegaly, three deteriorated permanently. Eventually 11 of the 13 died of cardiac causes in the subsequent 4.7 years of follow-up. It was concluded that while patients whose hearts

revert to normal size within six months postpartum can be allowed to have further pregnancies, those who display continuing evidence of cardiomyopathy should avoid future pregnancy.

In view of the frequency of pulmonary emboli, it is felt that oral contraceptives are not ideal for these patients, and tubal ligation may be necessary.

With the advent of echocardiography and radionuclide angiography, it will be interesting to see how effectively we can follow these patients and understand more about the natural course of this enigmatic disease.

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EKG of the Month

W. BARTON CAMPBELL, M.D.

A 72-year-old woman was referred to St. Thomas Hospital for implantation of a pacemaker after admission elsewhere for an abrupt sensation of "weakness." Her heart rate was 35/min and her blood pressure 156/70 mm Hg. She had diabetes mellitus, suboptimally controlled with diet and NPH insulin, and because of refractory hypertension had started pindolol (Visken) therapy two days before admission. Atropine 1.2 mg given IV prior to her transfer produced no significant increase in heart rate. An admission electrocardiogram was obtained (Fig. 1).

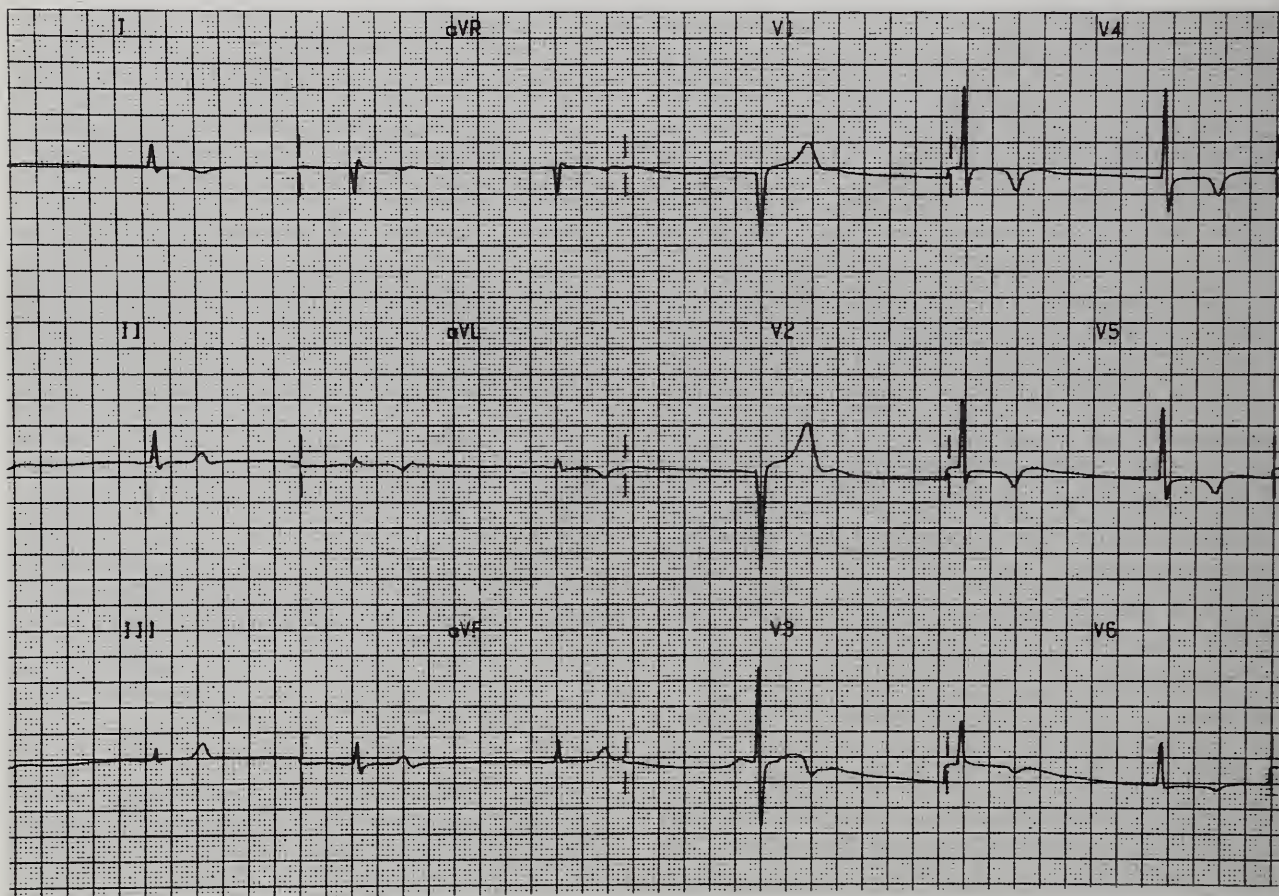


Figure 1

Discussion

The tracing shows a regular rhythm at a rate of 38/min. Low voltage P waves appear to be present (note slight deflections in the base line) 0.24 seconds prior to the QRS complex. The QRS complex is widened with a duration of 100 msec. The T waves are prominent in V_1 and V_2 and are inverted in V_3 through V_6 and in lead I and aVL.

Admission potassium was 6.7 mEq/liter with a glucose of 275 mg/dl. Arterial pH was 7.43 with a PO_2 of 73 torr and PCO_2 of 35 torr. Pindolol was withheld, and she was given 50 units of regular insulin IV with sodium polystyrene sulfonate (Kayexalate). The potassium fell to 5.2 mEq/liter within 20 hours, when another electrocardiogram was obtained (Fig. 2).

This tracing shows sinus rhythm at a rate of 79/min. The P waves are now clearly visible in leads II, III and aVF, with a PR interval of 0.20 seconds. QRS duration is not notably changed. There is normalization of the T wave with up-

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

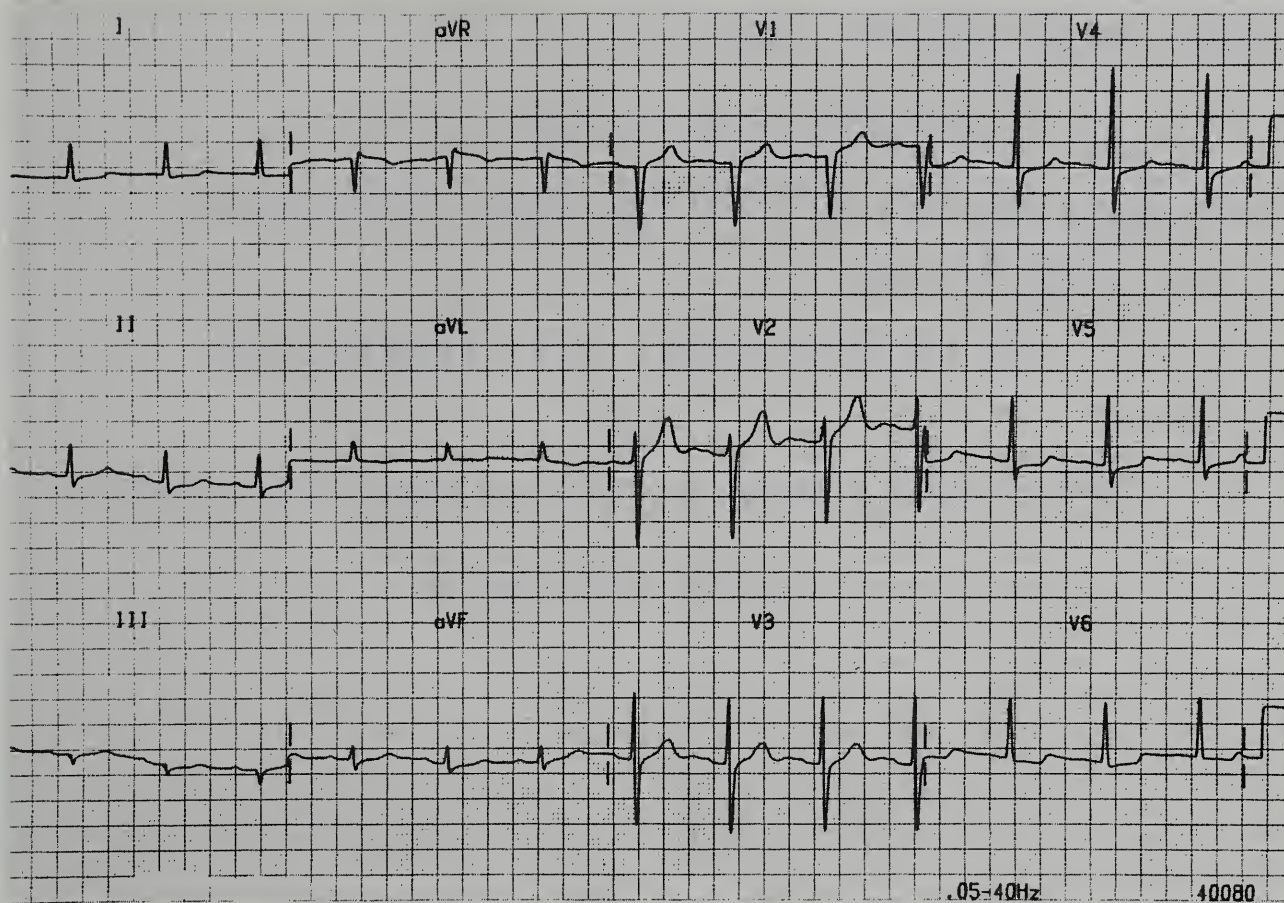


Figure 2

right T waves in V_3 through V_5 and a biphasic T wave in V_6 . There continues to be lateral ST segment sagging. U waves are present.

Observation over the next few weeks with radiotelemetered monitoring and 24-hour ambulatory Holter electrocardiogram showed sinus brady-tachy syndrome. The patient eventually was treated with a pacemaker to control mild bradycardia, and digoxin and quinidine were given for intermittent atrial fibrillation and multiple atrial ectopic beats. Though pindolol was not restarted, her blood pressure remained normal while in the hospital.

Pindolol is marketed as a beta-blocking agent with partial beta agonist activity. A recent study demonstrated no significant bradycardia with pindolol therapy in patients who have heart rates less than 80 beats per minute, believed to reflect a "balance between the intrinsic sympathomimetic activity and beta-blocking effects of pindolol."¹ Although it is marketed as an agent with intrinsic sympathomimetic activity, bradycardia may complicate pindolol therapy "in two percent or fewer patients" (Sandoz Pharmaceuticals, personal communication).

Hyperkalemia related to beta-blocking therapy has been described previously² but hyperkalemia with pindolol therapy has apparently not been reported. Elevation of serum potassium causes T waves to become tall and peaked (usually best seen in the precordial leads) and the QRS duration to be increased. Prolongation of PR interval, with lowering and widening of P waves, may also occur as the hyperkalemia becomes more pronounced.

In summary, the electrocardiographic changes demonstrated in Fig. 1 are nonspecific, but involve rate, conduction, voltage and repolarization abnormalities in association with hyperkalemia and beta blockade by an agent with beta agonist effects.

CONCLUSION: Bradycardia; nonspecific ST-T changes; low P wave voltage; first degree AV block; nonspecific intraventricular conduction delay.

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New Approaches to Patient Care Inspection In Nursing Homes

VADA A. SMITH

In August 1983, the Department of Health and Environment instituted a new policy of unannounced inspections of nursing homes in Tennessee. The policy applies to all inspections, including annual surveys, follow-up visits, complaint investigations, and quality assurance visits.

The Department is also developing a request to the U.S. Secretary of Health and Human Services for a waiver to allow the flexibility of moving into a new survey process which would focus more on inspections of actual delivery of service and patient care in order to insure good patient outcome. Attention would be concentrated on patients rather than record-keeping and paperwork. Annual surveys of each nursing home would include inspection of a random statistically significant sample of patients and records, conducted by teams of four to five staff persons in one day. The reduction from the current 12-person, three-day process will allow more time for follow-up of facilities with problems.

It is the responsibility of each long-term care facility to insure that the health care of every patient is under the continuous supervision of a physician, who prescribes a planned regimen of total patient care based on a medical evaluation

of the patient's immediate and long-term needs. It is the responsibility of the long-term care health professionals (nurses, dietitians, pharmacists, social consultants, administrators, rehabilitative personnel) to carry out the planned regimen of total patient care as prescribed and supervised by the physician.

It is the responsibility of the physician to complete a history and physical examination on the patient upon admission to the long-term care facility, provide comprehensive orders for a total program of care, revise the orders as needed, provide necessary medical care in case of emergencies, and visit patients as needed or required. The physician should be available to the long-term care staff, who provide the day-to-day care for the patients. The long-term care staff should endeavor to establish a good working relationship with physicians to enable the patient to benefit from total patient care.

Federal and state regulators see hope for trimming the paperwork in nursing homes in exchange for improved total patient care programs.

Tennessee is developing a modified survey process to lessen the pressure of paperwork on physicians and nursing home staff, allowing more time for all to spend with patients, who are after all the focus of attention and who need all of the tender loving care they can get.

From the Division of Health Care Facilities, Tennessee Department of Health and Environment, Nashville.

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JANUARY, 1984

editorials

Nineteen Eighty-Four

This is it—the year George Orwell marked about 1940 as the year of Big Brother, when in the Great Society there will be neither any more sorrow nor pain, and Big Brother will wipe away every tear from your eyes. Of course, he will wipe away everything else, too, and only the state will survive. So much for George.

Visions of the future have clouded the eyes of man since the first syllable of recorded time, and much time and effort have been expended in

prognostication, irrespective of any possibility of accuracy or practicality. Some, indeed, have been born of their authors' wildest imaginings, yet some of those have come nearer fulfillment than many seemingly less far-fetched. Some visions, like Orwell's, have been simply logical extensions of the world situation as the author perceived it at the time. Another vision of the same genre is portrayed in the film *Rollerball*. In a world in which war has become unnecessary because the world is run by corporate management, to satisfy man's need for mayhem a game is invented in which the score is kept in deaths. It is reminiscent of both the ancient gladiatorial games, invented to keep the public's mind off important matters of state, and present day sports, which even if not deliberate serve a like purpose.

The truth of the matter is that the crystal ball is foggy at best, and what is revealed is subject to misinterpretation. Interpretation would be easier if man always behaved logically, but the converse appears more often to be the case. Therefore, "the best laid plans of mice and men gang aft aglae," as Bobby Burns wisely observed.

The year 1984 has been more or less breathlessly awaited as some sort of watershed, though with less and less anticipation, to be sure, ever since Orwell wrote the book. What it was to be a watershed of has never been quite clear, at least to me, and it has become increasingly less so as time has gone by, since some of what Orwell predicted arrived far ahead of schedule, at least in some places in the world. It has been an axiom of history that men have sought control over the lives of others, the more by the fewer the better, and many times the world has come much closer to total control by a few, or even one, than we are, or at least apparently are, at this moment in history.

In addition to its being 1984, there are lots of things you can worry about this year, and if you need help worrying, consult your horoscope. Then you can *really* worry. Worry is, of course, quite different from concern. Worry, as an end in itself, absorbs all one's energy that should instead be directed into areas of concern. We all need to be concerned in this year for our families, our government at various levels, our nation, our world in all its aspects, and, not least, for ourselves. Our greatest concern for ourselves should be our relationship with God, since a proper relationship with Him relieves worry and

directs concern into proper channels. That will prevent our efforts becoming diffused, an eventuality that itself ensures worry because we are sure to see ourselves as ineffectual.

This year of our Lord 1984 may be the best year of your life, or it may be the worst. It also may be the last. On the other hand, for most of us it will likely be none of the above, barring the holocaust, in which the fortunate will die, or the rapture, in which the fortunate will not, and life can be expected to go on pretty much as usual. You win a few and you lose a few; not a few are draws, and some are called on account of rain.

Whatever the year is like, if the Lord is your shepherd, goodness and mercy will follow you; the troubled waters will be still and your soul restored, even when His plans and yours do not coincide. I pray it will be so for you in 1984, regardless of life's circumstances.

J.B.T.

Thoughts on *The Day After* on the Day After

Scarlett O'Hara's formula for retaining her composure in adversity was summed up in her oft-repeated observation, "I'll think about it tomorrow." While it did keep her functioning, it did little to alter the course of events. Though there are clear indications that mental attitude can alter the course of illness once it has gained a foothold, there is less certainty about its preventive role, though that too is possible, I suppose. Notwithstanding Polyanna's contrary opinion, there are limits, though not clearly defined, to be sure, to what human intellect can accomplish.

The so-called super-realistic television film *The Day After* was propagandized as the film that would change public attitudes toward nuclear weapons by making us at last think about them, and because nuclear war would be obviously unthinkable, it would therefore never happen. It is also unthinkable that thousands of lives can be lost each year on our highways, yet because our citizens value their mobility, and because both machines and mortal flesh are subject to failure, the carnage continues, and is likely to continue, unabated.

Lawrence, Kansas is a quiet, prosperous, comfortable university community where folks go about their business, and, like the rest of us in

the good ole USA, live out their lives peacefully or not so peacefully, as the case may be. Beirut, Lebanon was like that once. So was Stalingrad in 1940 and a host of other cities and towns in other places that at other times were reduced to rubble under which their citizens were entombed. Such outward peace and calm is always deceptive, as beneath the surface lie the seething emotions of those either struggling for power or struggling to escape its tyranny. When the pot boils over, anything in the way gets burned by whatever means are handy.

Statistics are fun to play with, but as a wag has pointed out, there are lies, damned lies, and statistics, and when push comes to shove everything is always 100% one way or the other in the individual case. It really makes little difference to the individual whether he is killed by a nuclear blast, high explosives, or a sword. Any short-term survival in the first instance may be marked by depilation, blindness, nausea and vomiting, burns and so on. In the others he may spend his waning hours trying to stuff his trailing entrails back into their accustomed cavity, if he can work his hands. The difference is only one of statistical magnitude. A touch of pregnancy is difficult to achieve.

This certainly is no defense of war, nuclear or otherwise. It is, to the contrary, a condemnation of carnage generally. Though there is a price at which the risk of such carnage can be mitigated, escape by such means has been proved by history to be both illusory and temporary. As the latest in a long line of Polish freedom fighters, Lech Walesa would tell you freedom is more easily kept than gained. The Poles have been struggling for centuries to attain theirs, having always been a small nation caught between great powers. One of our own first freedom fighters put it rather well. He said, "Is life so dear or peace so sweet that they must be purchased at the price of chains and slavery? Forbid it, Almighty God!" Disregarding their own safety, such individuals look to the long-term benefits. Freedom is their most valuable possession; some of us find it out too late.

I suppose one's ultimate reaction to the film depends upon what it is one holds most dear. Some have deluded themselves into believing that if *we* can only do away with *our* nuclear weapons, the countless Lawrence, Kansases across our nation can remain the sleepy comfortable towns they were the day before, and the world will be a better place. The citizens of Warsaw, Prague,

Budapest, and so on might give them some advice along those lines. Their persecutors have proved tractable only when it suited their own purposes to be so. It is much easier to be concerned about *the* world when your own is not hell.

I found the film better done than and about as necessary as *The War of the Worlds*. The succeeding debate made our helplessness clear; under even the best foreseeable circumstances nuclear weapons will be with us for decades, and there can be no assurance they will not be used by someone even if we, or even we and the Soviet Union, should scrap all of ours. After all, it takes only a few, and not tens of thousands, to make the planet uninhabitable, and the bomb is easy both to make and to deliver. I am put in mind of a poster I saw in which a small puppy was confronting a large boar. The caption read, "If you can't go over it, through it, or around it, you had better negotiate." Fat chance! When the revolver was invented it became known as the equalizer, for obvious reasons.

Since there must be those in the Soviet Union who oppose nuclear weapons, too, do you not wonder why it is we never hear of any demonstrations there like the ones that crop up against nuclear weapons all over this country and Western Europe? I suppose if we should scrap our own nuclear weapons, there would be no more anti-nuclear demonstrations in this country or Western Europe. In such an eventuality, though, there will likely be no demonstrations of any other kind, either. Any request to put one on will be met with a polite (maybe) but firm, "NYET!" unless the request is for a Red May Day Celebration.

Oh, well. At least you will be alive—or will you?

J.B.T.

Survival To What?

Leaving Las Vegas before dawn on a chilly fall Sunday several years ago brought me to the environs of Zion National Monument in southern Utah while the sun was still quite low on the horizon and the dew fresh on the grass, wherever there was any. The red Aztec sandstone of the monoliths, set in the shimmering gold of the aspens, bled into the ocean of sky above the stream that rippled and babbled alongside the road. When I cut the engine, no other sound than the

cry of a hawk was audible above the stream's chatter. Once in Zion Canyon itself, flanked by sheer walls occasionally speckled with the conifers that cling tenaciously to some dimly imagined outcrop, I hiked along the trail beside the stream, which as it narrowed became ever more insistent, throwing jewels onto the yellow aspen and scarlet sweetgum leaves that hovered over it, jewels that sparkled in the light of the sun that had only just found its way into that deep cleft in the mountain. Surely there is no spot on earth more lovely. It is even scarcely equalled except by its sisters of the Four Corner states—the Grand Canyon, Bryce Canyon, Cedar Breaks, Monument Valley, and Canyon de Chelly, to name only a few of the wonders in that marvelous area generally known as the Great American desert.

Because it was desert land, and until recently more or less inaccessible except to the most durable and venturesome, a lot of it was turned over to the Indians, our largesse toward our red brothers having always been to give them whatever was otherwise useless. Fortunately or unfortunately, that land not only contains on its surface some of the world's most magnificent natural wonders, but also carries within it one of the richest deposits of coal, shale oil, and uranium to be found anywhere on the globe. This has proved to be a mixed blessing to the Indians, who besides having reaped the financial benefits of the bonanza, are also being poisoned by the uranium mines, both from the tailings and from the radon gas that is continuously expelled from the mines' exhaust systems.

The oil shale and coal lie close to the surface, and to be economical, mining the coal and reclaiming the oil from the shale must be surface operations. Such stripping of the earth necessarily permanently disfigures the land, as no reclamation is possible, considering the miniscule annual rainfall. Whatever water is available—and it must either come from deep within the earth or be diverted from the Colorado River—is being used for processing the coal and shale, which is already seriously depleting the water supply of the entire Southwest. It has been suggested by both governmental agencies and the corporations engaged in the mining operations that since the uranium mining is making much of Utah unsafe, and the other operations will scar it beyond repair, all of the Four Corners area should be declared unfit for human habitation. This would also make it accessible as a dumping ground for toxic

wastes. In short, it is suggested that this area, so rich in both Indian tradition and natural wonders, become a sacrifice area "to ensure our independence from Persian Gulf oil producers."

I am probably as much of a supporter of free enterprise as anyone you can find. I am also opposed to rape. Since custom has confined the word "rape" to mean violation of a woman (not, according to my dictionary, of a man—my dictionary seems to be old-fashioned), whereas it formerly included plunder, I will amend my statement to say that I oppose both rape *and* plunder. Now I am certain that the developers of the area would also assure us quite sincerely that they, too, are opposed to rape and plunder, and so what is greedy exploitation and what is development of our natural resources for mankind's good (actually, it is not "development" at all, since it depends upon extraction from the earth of irreplaceable substances) becomes a matter of definition, depending upon whom you ask. There would be a wide divergence of opinion as to what should be done to benefit the most of our citizens and progeny. As with a great many issues, the truth is doubtless somewhere in between the two opposing views.

I am not one who believes it necessary to shut down the entire economy to conserve endangered biosphere, as it seems some of the more radical conservationist elements would have us do. Nevertheless, I do think that at the other extreme some of the large corporations, especially mining and logging interests—including their work force—frequently have unrealistic expectations for and make excessive demands upon our environment, to the detriment of society. They have done little to develop—and here the word is used correctly—alternative sources of power that neither deplete nor destroy. Until they do, I view as criminal exploitation the destruction, in the name of the public welfare, of such grandeur as our Four Corners area holds. Sacrifice area indeed! When one area goes, others are sure to follow after.

We have the opportunity to bequeath to our children not only a rich heritage, but also the amber waves of grain, purple mountains' majesty, and fruited plains we sing about. That opportunity is fading fast. The stubble that will result from our profligate scalping of the earth will differ from nuclear destruction only in that our species will survive, though few others will. Physical persistence is not all there is to living, and before we reach the point of no return in our pillage

and our sowing of toxic wastes, some with a radioactive half-life of thousands of years, we need to seriously address the question of toward precisely what end human survival is directed. Though most of us will likely not have to inhabit such a sterile world, our children will. If that is what we want for them, then we are going about it properly. If it is not, we have not much time to redirect our energies.

J.B.T.



John C. Ayres, Jr., age 72. Died July 31, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Robert Atlee Cooper, age 47. Died October 24, 1983. Graduate of University of Tennessee College of Medicine. Member of Greene County Medical Society.

O. Merton Derryberry, age 73. Died August 5, 1983. Graduate of University of Tennessee College of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Delmas K. Kitchen, age 76. Died July 26, 1983. Graduate of University of Arkansas School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

David E. Levenson, age 30. Died November 2, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Lawrence C. Lewis, Jr., age 70. Died October 16, 1983. Graduate of Tulane University Medical School. Member of Memphis-Shelby County Medical Society.

W. D. L. Record, age 86. Died November 11, 1983. Graduate of Vanderbilt University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

K. R. Somashekar, age 31. Died October 5, 1983. Graduate of St. Johns Medical College, Bangalore, India. Member of Northwest Tennessee Academy of Medicine.

Lowell E. Vinsant, age 70. Died October 17, 1983. Graduate of University of Tennessee College of Medicine. Member of Blount County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BUFFALO RIVER VALLEY MEDICAL SOCIETY

Andree-Ellen Gunther, M.D., Centerville

COCKE COUNTY MEDICAL SOCIETY

Michael T. Hood, M.D., Newport

CUMBERLAND COUNTY MEDICAL SOCIETY

James Harold Simmons, Jr., M.D., Crossville

GREENE COUNTY MEDICAL SOCIETY

Robert C. Diez D'Aux, M.D., Greeneville

Peter Reardon, M.D., Greeneville

Ronald E. Turk, M.D., Greeneville

LAKEWAY MEDICAL SOCIETY

Charles S. Fulk, M.D., Morristown

PUTNAM COUNTY MEDICAL SOCIETY

Daniel F. Coonce, M.D., Cookeville

Lloyd Douglas Franklin, M.D., Cookeville

James Gregory Neal, M.D., Cookeville

Randall Gary Samples, M.D., Cookeville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

William K. Prater, M.D., Oak Ridge

SUMNER COUNTY MEDICAL SOCIETY

Ellis Len Goodin, M.D., Gallatin

Ronald V. Miller, M.D., Gallatin

Charles S. Ruark, M.D., Old Hickory

Charles Norman Spencer, M.D., Gallatin

WASHINGTON-UNICOI COUNTY MEDICAL ASSOCIATION

Deborah Lynn Alison, M.D., Johnson City

Robert S. Cowles, III, M.D., Johnson City

Laurence G. Lines, M.D., Johnson City

personal news

Billy J. Allen, M.D., Chattanooga, has been installed as president of the Tennessee Academy of Family Physicians. *David McConnell, M.D., Newport*, was elected as speaker of the Academy.

Douglas Bechard, M.D., Chattanooga, has been elected to Fellowship in the American College of Physicians.

William A. Bryant, M.D., Woodbury, was honored by the American Academy of Family Physicians for 30 years of continuous membership in the Academy.

Benjamin F. Byrd, M.D., Nashville, has received the 1983 Distinguished Service Award of the American Cancer Society in recognition of his research in the field of breast cancer.

James T. Craig, Jr., M.D., Jackson, has been accepted as a member of the American Orthopedic Society for Sports Medicine.

Robert H. Creech, M.D., Chattanooga, has been elected chief of staff of Metropolitan Hospital, a pediatric and diabetes specialty facility.

Lemuel W. Diggs, M.D., Cordova, has received the annual Excellence in Research Award of the UTCHS chapter of Sigma Xi, an honorary society of research scientists, recognizing his dedication to the study of sickle cell anemia.

Fred M. Furr, M.D., Knoxville, has been installed as president of the American Society of Bariatric Physicians.

Horace M. Leeds, M.D., Oneida, has been named Family Physician of the Year by the Tennessee Academy of Family Physicians.

TENNESSEE MEDICAL ASSOCIATION 149TH ANNUAL MEETING

April 11-14, 1984

Hyatt Regency Hotel, Knoxville, Tennessee

Samuel O. Massey, Jr., M.D., Oak Ridge, has been elected to Fellowship in the International College of Surgeons.

Burton M. Rudolph, M.D., Knoxville, has been installed as president of the American Association of Clinical Immunology and Allergy.

Fredia Stovall Wadley, M.D., Winchester, has been appointed Chief Medical Officer for the Tennessee Department of Health and Environment.

national news

From the AMA's Office in Washington, D.C.

Physician Fee Freeze Delayed By Congress

Physicians gained a temporary respite as legislators, bent on adjournment, laid aside a debate on physician fee freezes and ended the first session of the 98th Congress Nov. 18 with the freeze and other budget items still hanging.

Fee freezes, in different forms, were attached to heavily-lobbied budget reconciliation bills neither the House nor Senate chose to grapple with in the flurry of year-end legislating.

The reprieve is likely to be short-lived, however, since reconciliation, at least theoretically, remains high on the congressional agenda when members reconvene Jan. 23.

In addition, some influential members in both parties want to enact deficit reduction packages that go far beyond the reconciliation measures and debate could intensify with the submission of the President's fiscal 1985 budget early in the new session. In this atmosphere, efforts to curb Medicare payments to physicians are certain to continue, and the AMA and medical specialties, having staved off a freeze in the confusing days before adjournment, are now preparing for a new battle.

In the House, debate will once again center on a Ways and Means proposal attached to the committee's budget reconciliation plan. Estimated to save \$920 million over three years, the proposal would roll back and freeze limits on prevailing fees for inpatient services; mandate assignment of inpatient claims; and remove hospital staff privileges of physicians who refuse assignment.

In the Senate, physician fee debates will revolve around two different proposals—a reconciliation measure that could go to the floor at any time and a deficit reduction plan being drafted in the Senate Finance Committee.

TMA Members Receive AMA Physician's Recognition Award

Fourteen TMA members qualified for the AMA Physician's Recognition Award during October 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Ralph L. Brickell, Jr., M.D., Tullahoma
Kenneth B. Carpenter, M.D., Knoxville
Deborah R. Doyle, M.D., Nashville
Gerald M. Fenichel, M.D., Nashville
Peter Harcy, M.D., Winchester
William M. Hogan, M.D., Knoxville
John P. Limbacher, M.D., Cookeville
Inder V. Malhotra, M.D., Oak Ridge
Ward C. Parsons, III, M.D., Memphis
Kodangudi B. Ramanathan, M.D., Memphis
George M. Schmits, M.D., Chattanooga
John J. Warner, M.D., Nashville
Burnice H. Webster, M.D., Nashville
Arthur J. Wilson, M.D., Memphis

The reconciliation measure would freeze prevailing fee limits until July 1, 1984 and would apply to outpatient as well as inpatient care. The more extensive deficit trimming proposal would continue the temporary freeze for another two years for physicians that don't accept assignment of all claims. When added to the \$1.6-billion savings from the temporary freeze, the new plan would save \$5.4 billion over the next four years.

The four-year, \$150-billion deficit reduction plan is the brainchild of Finance chairman Sen. Robert Dole (R-KS). Dole pushed hard for its enactment in the last days of the session but was able in the end only to win agreement to have the staff draft a bill incorporating the major elements of his proposal is modified to suit other members. The carefully crafted tentative compromise could unravel when talks resume in February because Sen. William Roth is threatening to offer an alternative more acceptable to the Reagan administration.

Other provisions in the tentative committee agreement include a fee schedule for clinical laboratories, restructuring of Medicare cost-sharing requirements, lowering the rate of increase that will be permitted in Medicare payments to hospitals, increasing Medicare Part B premiums and extending current reductions in federal payments to Medicare.

Federal Panel Says Abandon UCR

A federal advisory panel assigned to look at Medicare's financial problems is recommending that Medicare abandon physician payment methods in effect since the program's inception and move to regionally adjusted fee schedules.

Since the panel is also suggesting that physicians be required to take all Medicare claims on assignment or no claims on assignment, the physician would either have to accept the Medicare fee schedule as payment in full for all his patients or he would have to bill all patients directly.

Officially known as the Social Security Advisory Council, the panel, chaired by former Indiana Gov. Otis Bowen, M.D., ordinarily would have looked at the entire Social Security program. Instead, this year it was instructed to concentrate on Medicare and the impending bankruptcy of the program's hospital trust fund. Its final recommendations adopted in early November are intended to generate about \$300 billion to keep the hospital fund solvent through 1995.

Several other recommendations, such as the physician fee schedule and changes in the claims assignment process, would not produce savings for the hospital fund but are intended to reduce costs of the supplemental medical insurance (SMI) fund.

A major portion of the new revenues for the hospital fund would come from increases in federal alcohol and tobacco taxes. Other major fund raisers are recommendations to cap the amount of employer-paid health insurance premiums that are nontaxable to employees; to add a Medicare hospital surcharge to the SMI (Part B) premium; to change the way medical education is financed; and to raise the initial age of eligibility for Medicare benefits. The council rejected proposals to means test benefits or increase the payroll taxes that now fund the hospital (Part A) portion of Medicare. It also turned down a plan to use general revenues to pay for hospital care for Medicare beneficiaries.

PROPAC Commissioners Chosen

A Brandeis University dean has been chosen to head a powerful new commission expected to play a major role in updating and modifying Medicare's diagnosis-related groups (DRG) pricing scheme.

Stuart Altman, Ph.D., dean of the Florence Heller School at Brandeis and formerly with the Department of Health and Human Services, will serve a three-year term as chairman of the new Prospective Payment Assessment Commission (PROPAC). Among the 14 other new commission members are six physicians and four hospital officials. Many of the members have previous experience in federal or state government or advisory panels.

The commission was mandated in the law that set up the DRG system. Beginning in 1986, it is to advise HHS on needed modifications or additions in the

DRGs to reflect technology and practice changes and to recommend an appropriate annual increase in the DRGs.

Among the new commission members are John C. Nelson, M.D., a practicing Salt Lake City obstetrician/gynecologist nominated by the American College of Obstetricians and Gynecologists, and Barbara J. McNeil, M.D., a Harvard professor of Clinical Epidemiology and Radiology at Harvard nominated by the Society of Nuclear Medicine. Other physicians on the commission are James J. Mongan, M.D., executive director of the Truman Medical Center in Kansas City, MO; Yvette Francis, M.D., Ph.D., director of Medical Services at the Sickle Cell Center for Research in Brooklyn, NY; Ernest Sward, M.D., professor of social medicine at the University of Rochester Medical Center; and Steven A. Schroder, M.D., professor of medicine at the University of California.

Hospice Benefits Delayed

Implementation of Medicare's new hospice benefit has been delayed by renewed efforts on the part of the White House Office of Management and Budget to cut payment rates proposed earlier this fall. News reports say that hospice home care rates would fall from about \$53 to \$42 a day and inpatient rates from \$271 to \$255 a day under the OMB proposal.

The hospice benefit was to have taken effect Nov. 1, and six hospices have received provisional approval to participate in the program. About 400 of the nation's 1,200 hospices are interested in participating, and the Health Care Financing Administration (HCFA) has surveyed 45 of these and scheduled surveys on another 58.

OMB's latest argument for reducing the rates is supported by some HCFA staff and is based on the premise that the latest data from a federally funded hospice demonstration program does not justify the higher rates.

National Hospice Organization officials responded that the demonstration hospices were not providing as high a level of care as is permitted under the new hospice benefit, so their costs are not reflective of costs under the new program.

HCFA Sets Physician DRG Study

Health Care Financing Administration head Carolyn Davis has put together a task force of HCFA staffers to collect the Medicare Part B data that will be needed for the agency's study on the "feasibility and advisability" of including physicians in Medicare's diagnosis-related groups pricing system. The report is due in 1985. The task force is headed by Don Young, M.D., deputy director of HCFA's Bureau of Eligibility. HCFA is developing new instructions to Medicare carriers regarding the types of data and format it wants to see. The data requested is from 1983 and HCFA wants to have it by July of 1984.

Other Doctor Studies Also Funded

The Health Care Financing Administration will provide up to \$3 million in grants in 1984 for research in several priority areas, including prospective payment and physician reimbursement. Announced in the Nov. 9 *Federal Register*, grants ranging from \$35,000 to \$275,000 per project will be awarded for studies of prospective payment methods for physician services; negotiated fee schedules, competitive bidding and per-case payments; significant reimbursement imbalances among different physician services; ways to reduce geographic and specialty differences in reimbursement for comparable services; ways of encouraging preventive care; and changes in the claim assignment process.

Community Health Centers Get \$11 Million

Health and Human Services announced awards of \$11.1 million in 62 grants to establish new community health centers or enable existing centers to open satellite clinics. The grantees are located in 32 states and territories, selected from among 191 applicants using criteria such as the medical needs of the population in the service area and the effects of unemployment on access to health care.

"Baby Doe" Vote Ducked By Congress

A coalition of medical and hospital groups sent letters to every member of Congress, urging them to delay a vote on controversial "Baby Doe" legislation. Indeed the vote was eventually postponed until at least next year as the move died with adjournment. The legislation would have permitted government intervention in the care and treatment of infants at risk with life-threatening congenital impairments. Although there have been efforts to reconcile different "Baby Doe" viewpoints, no satisfactory compromise has yet been reached. The group said Congress should hold hearings on the issue.

"Because of controversial requirements contained in this legislation, the undersigned groups are opposed to consideration of the bill at this time," it stated. The letter was signed by representatives of nine health care groups: the American Medical Association, the American Academy of Pediatrics, the American Association of Medical Colleges, the American Hospital Association, the American Psychiatric Association, the Federation of American Hospitals, the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the National Association of Children's Hospitals and Related Institutions.

The bill—HR 1904, sponsored by Rep. Austin J.

Murphy (D-PA)—cleared a subcommittee last March and the full Education and Labor Committee last May. Debate on the floor of the House once was scheduled for the week of Nov. 7. Now, debate may take place the next session of Congress, which starts Jan. 23.

Congress Tightens Fetal Research

The long debate over who should control the National Institutes of Health pursestrings was eclipsed in the closing days of Congress by a more controversial and emotional issue: fetal research.

The biomedical community watched with alarm as Rep. William Dannemeyer (R-CA), "speaking for society's unwanted members," won the majority of House votes with an amendment to the NIH bill which restricted virtually all research on fetuses intended for abortion.

The tables suddenly turned, however, when Rep. Rodney Chandler (R-WA) offered a surprise alternative: an amendment that permitted research with appropriate safeguards. Fetal research is acceptable only if it poses minimal risk to the fetus, and if scientific knowledge can be gained in no other way, the amendment said. Moreover, research would be permitted only if approved by six layers of institutional and governmental peer review, involving between 30 and 40 individuals, he added.

This more moderate amendment—along with the entire NIH bill—won the voiced support of the House, plus resounding applause. Rep. Dannemeyer, reluctant to give up, promptly asked for a count of votes, then objected to the vote, saying that a quorum was not present. Overruled, he then requested a separate vote on Chandler's amendment. Attention spans were short and legislators were eager to go home; this, too, was denied.

The medical community had two reasons to be relieved by the House vote. The moderate fetal research amendment keeps research opportunities open while making sure that safeguards are observed. The NIH bill keeps authority for NIH spending in the hands of scientists, not legislators.

The NIH bill, which reauthorizes National Cancer Institute, the National Heart, Lung and Blood Institute, and other expiring NIH programs, is a compromise between two vastly different proposals. Reps. Henry Waxman (D-CA) and John Dingell (D-MI) favored high funding levels and a line-item list of research projects specified by Congress. Reps. Richard Shelby (D-AL), James Broyhill (R-NC), and Edward Madigan (R-IL) pushed for lower funding levels and retaining the current NIH-based system of authorizing grants. The adopted compromise contains the high funding levels set in Waxman's proposal but lets NIH hand out the money.

Rep. Shelby called the NIH bill "a unified workable package that takes a consensus approach to the management of NIH." Rep. Madigan applauded the "convergence of widely divergent concerns."

A similar sense of commitment seems lacking in the

Senate; these legislators have postponed consideration of their NIH bill until the next session. The legislation is believed to be accepted, although not embraced by the Reagan administration.

Methaqualone Banned

The nation may follow the example of eight states in banning the controversial sedative-hypnotic drug Quaalude (methaqualone). The House of Representatives, believing the drug's danger outweighs its benefit, has voted a nationwide ban of the product. Simultaneously, manufacturer Lemmon Co. announced that it will cease production.

The states of Georgia, Illinois, Florida, Texas, Connecticut, Mississippi, New Jersey, and North Carolina already have pulled it off drugstore shelves. Prescriptions for the once-popular drug plummeted accordingly: in 1973, over 4 million prescriptions were written; by 1982, only 300,000 prescriptions were written, a reduction of more than 90%.

Distribution of existing medication in stock will stop on Jan. 31, 1984, to give physicians and patients time to switch to other medications. The decision to discontinue the drug was due to "the increasingly adverse legislative climate that surrounds the product and the resulting negative publicity about our excellent company" said a spokesman for the drug's sole manufacturer, Lemmon Co. of Sellersville, Pa.

Congress continued its push for restrictive legislation; without controls, another manufacturer might bring the drug back on the market said Rep. Henry Waxman (D-CA). The adopted bill shifts the legal status of the sedative-hypnotic from Schedule II to Schedule I, a category shared by heroin, LSD, marijuana, and other drugs for which there is no accepted medical usage. The bill was pushed by city and county physicians, who struggled to close down so-called stress clinics—where a person could walk off the street with a complaint of sleeplessness and get a prescription for methaqualone—as they proliferated around the country. The Food and Drug Administration and American Medical Association opposed any change in status, saying that the drug still has accepted medical usage.

NIH Researchers Downplay British Pill Data

National Institutes of Health researchers are calling a new study that links oral contraceptives to cervical neoplasia "potentially important but only tentative in nature," saying that more rigorous research is needed before drawing final conclusions.

The study, published in the Oct. 22 *Lancet*, found that three forms of cervical neoplasia—invasive cancer, carcinoma-in-situ, and dysplasia—occurred more frequently in women taking the pill than in women using IUDs for birth control.

The incidence of neoplasia for women on the pill ranged from 0.9 per 1,000 women-years in those with

up to two years pill use to 2.2 per 1,000 women-years in those with more than eight years pill use. Women using an IUD showed no similar trend: in this group, rate of neoplasias fluctuated around 1 per 1,000 women-years, reported Martin P. Vessey, M.D., and colleagues at Radcliffe Infirmary, Oxford.

Based on their findings, the researchers advise that all women using the pill for more than four years seek regular cervical cytological examinations. This recommendation has been endorsed by the Committee on Safety and Medicines, Britain's version of the Food and Drug Administration.

Skeptical NIH researchers point out that cervical cancer can be related to a large number of influencing factors, such as sexual behavior, cigarette smoking, and folic acid nutritional status.

NIH researchers also cautioned about a new British study linking oral contraceptives to breast cancer in young women reported in the same issue of *Lancet*. Recent American studies discounted the risk and in fact praised the protective effects of the pill.

At the invitation of the National Institutes of Health, British authors of the study arrived in Washington, D.C., in November, where they met behind closed doors with American researchers to exchange data, criticism and conclusions. Information obtained at the meeting will be used to form specific policy guidelines for physicians within two or three months.

The British study had found increased rates of breast cancer in young women who had taken high-progestogen forms of the pill before age 25. Breast cancer in young women, although a relatively uncommon form of the disease, tends to progress faster and be less responsive to treatment than breast cancer in older women.

Most frequently implicated were the high-progestogen combination brands of the pill: Ovulen, Demulen, Ovral, Enovid 10, Norinyl 10, Ortho-Novum 10, Lo/Ovral, Enovid 5, and Norlestrin 2-5. Risk appeared to increase with extended use; whereas relative risk was 1.0 for non-users, it climbed to 4.1 for women using the pill more than six years.

An editorial in the same issue of *Lancet* cautions, "The growing evidence that the pill has residual and long-term effects on health needs to be taken seriously and discussed rationally."

British researchers contend that U.S. studies have not detected the cancer link because they focused on older patients who were unlikely to have used the pill for a long time at a young age.

But in the United States, researchers are more skeptical. This one study, while of interest, should not scare women away from the pill, say reproductive disease specialists Bruce V. Stadel, M.D., M.P.H., and Nancy Lee, M.D., of the Centers for Disease Control. The trend must first be substantiated in other studies, they say. Furthermore, they are concerned about the methodology used in the study. For example, there is insufficient information about subject characteristics, matching procedures and interviewing techniques, they say.

Moreover, American researchers say that they have since accumulated additional data that, when analyzed, will confirm or refute the new British findings. These still-unpublished studies from CDC, NIH, Bos-

ton University, and World Health Organization contain "better numbers" than the British work, one CDC researcher confided.

Foreigners Competing for American Organs

On Capitol Hill there is growing concern that foreigners may overload a transplant system already stretched to capacity. More than 10,000 Americans were on waiting lists for kidney transplants last year and some 70,000 persons are on dialysis machines. However, foreigners receive between 3.5% and 7% of all American kidneys each year, according to statistics gathered by the American Society of Transplant Surgeons.

They travel from as far away as Tanzania and Qatar to take advantage of the United States' seeming endless supply of medical resources and technology. The majority are from Moslem countries where religious customs allow acceptance but not donation of organs, and less developed countries where economic constraints are the obstacle.

Testifying in November before the House Committee of Science and Technology, U.S. physicians stressed that medicine is a humanistic discipline and should not be viewed in nationalistic terms. The Hippocratic Oath makes no distinctions based on race, color or place of origin, physicians agreed. Overwhelmingly, U.S. physicians support the current system that permits their skills and services to be available to all citizens of the world.

Many physicians believe that a straightforward "Americans first" policy is morally objectionable. Others contend that an "American first" policy is fair, but that foreigners should not be rejected and instead receive organs that are unsuitable for U.S. citizens. Foreigners need not receive inferior organs, they explain, but simply organs that for whatever reason—length of storage, excessive vascularization, history of infections such as herpes, meningitis or pneumonia—may make rejection a more likely possibility.

"The issue of a medical decision should not be interfered with by geopolitical considerations," said G. Baird Helfrich, M.D., director of the Division of Transplantation at Georgetown University Hospital. "A foreign national is a patient and should be treated as a patient," he says.

Rather than restricting access, some experts urged an even more widened pool of candidates. It is extremely difficult to obtain a perfect match within the entire country and possibly the entire world. Since there are more than 80 different tissue types combined in different ways, the chance of obtaining a perfect match is about 1:100,000. Barriers need to be broken, not built, said Paul I. Terasaki, M.D., professor of surgery at the University of California School of Medicine in Los Angeles.

Most hospitals choose transplant candidates based on histocompatibility, clinical factors, patient's serum sensitivity, preservation time, and proximity and ease of transport of organs. Once accepted as a good can-

didate, some hospitals put the foreign patient on the transplant list along with other U.S. patients; others put the foreign patient on the priority list for organs unused by U.S. patients, which would otherwise be shipped out of the country. Persons who are very ill, on dialysis, or whose only chance of survival is transplantation may be placed on an "urgent" or "emergency" list.

The benefits of the current system outweigh any advantages of a more restrictive policy. There is no preferential treatment being given to foreigners in the distribution and allocation of organs, they point out. On the contrary, foreigners take up the slack of organs that are wasted, either unused or unmatched.

The foreigner coming to America for an organ may even bring some important advantages to the system, physicians explained. Transplantations to foreigners help share the fixed costs of a transplantation program to the American taxpayer. "Large transplant programs have a number of fixed costs which have to be shared by the total number of transplant operations performed; the addition of perhaps 10 foreign transplants could cut the fixed costs to the U.S. taxpayer in half," said George E. Schreiner, M.D., professor of medicine at Georgetown University School of Medicine.

Foreign recipients also decrease the distribution problem for cadaveric organs, increase the percentage that are actually used, enlarge transplant programs to make them more efficient, and provide case material for clinical investigation, facilitating research, Dr. Schreiner said.

Rather than overhauling the current system, physicians offered other recommendations. The United States could establish a quota system for foreign transplants; establish categories of priority; export a larger number of organs that are unusable by U.S. standards, opening greater opportunities to foreign countries; increase the number of donations, rather than restricting the number of recipients due to national origin; or assist other countries in developing the technology necessary to establish their own organ transplant systems.

Congress Tackles Infant Problems

Infant mortality rates worsened in at least nine states in 1982 and other states had pockets where infant deaths rose significantly.

The statistics, reported at a hearing of the Congressional Joint Economic Committee, were compiled by the Food Research and Action Center, a Washington-based health research group which earlier this year released figures showing increased infant mortality in several major cities. The new data shows that infant deaths (which averaged 11.2 per 1,000 live births in the United States in 1982) jumped in states as diverse as Alabama and Utah.

While the increases were only half a percent or less in six of the nine states, three states (Alabama, New Hampshire and Vermont) saw increased death rates of about a percent.

Furthermore, mortality rate changes haven't been

compiled yet for 15 states, and even in states which are not reporting overall increases, infant mortality was up substantially in some areas. In Michigan, for example, infant mortality rates resumed a downward trend (12.8 per 1,000) in 1982, after having risen to 13.2 in 1981. But, in one part of Detroit a baby's chance of dying before its first birthday was 33 in 1,000—about the same as in Honduras, the poorest country in Central America.

These and similar statistics are being cited by child health advocates as evidence of a "rising tide in needless infant deaths" resulting from reductions of up to 30% in federal funding for maternal and child health programs since 1981. Proponents say that prior to such cuts, these programs were saving up to \$5 for every \$1 they spent and that infant mortality rates dropped by over 40% between 1967 and 1979 in part because of such programs.

Congressional debate, to resume after Congress reconvenes in January, will revolve around two types of proposals: those that expand authorization levels for maternal and child health block grants to states and those that enhance federal Medicaid spending for children and pregnant women. In the House, the fight is being led by House Commerce Health Subcommittee chairman Rep. Henry Waxman (D-CA). In the Senate, it is being carried by Sens. Lloyd Bentsen (D-TX), Dale Bumpers (D-AR) and Alan Cranston (D-CA) among others.

The maternal and child health block grant was created in 1981 when seven categorical programs funded at about \$457 million were combined into a single program for which \$399 million has been authorized in fiscal 1984. Although this is more than the \$373 million authorized in fiscal 1983, funding in 1984 is actually decreasing by about \$79 million since a \$105-million jobs bill supplement provided in 1983 is not scheduled to continue in 1984.

If inflation is considered, say the March of Dimes Birth Defect Foundation and the American Academy of Pediatrics, the block grant has reduced funding to maternal and child health programs by 28% to 30% from what the programs would have received had they remained categorical. Furthermore, AAFP representative Kenneth Osgood, M.D., told the Joint Economic Committee the cuts to maternal and child health programs were greater than those in any other health block grant, and they have been particularly deleterious to programs for poor women and children in the inner city.

At the same time, Medicaid has been cut about \$4 billion and community health centers which provide key services to mothers and children, have been reduced by about 25%.

Recently, however, some fiscally conservative states have shown a surprising trend toward increasing funding for mothers and children. Mississippi, Illinois and Ohio are among a handful of states that hope to curb overall state spending by expanding Medicaid benefits for mothers and children. The decision follows the discovery that reducing Medicaid benefits increased state and county costs for indigent care at public hospitals and stems from a desire to supplant the local dollars with Medicaid matching from the federal government.

Rep. Waxman wants more states to expand benefits

for mothers and children, and to this end, he pushed through a Child Health Assurance Program (CHAP) as part of the Commerce panel's budget reconciliation proposal. Expected to cost about \$200 million in fiscal 1984, CHAP would extend Medicaid coverage to first-time pregnant women who would qualify for Medicaid once their baby is born and to children and pregnant women in two-parent families where the primary wage-earner is unemployed. In 1986, women in all low-income families would be covered regardless of the family's employment status.

Ten states, which already cover all these categories, would receive slight, if any, increases in federal Medicaid funds. But for the remaining states, which presently deny coverage to some or all these beneficiaries, the federal government would pay the entire cost of coverage for the new categories of recipients.

In the Senate, Bentsen persuaded the Finance Committee to include a modest two-year maternal health provision in the committee's health plan for the unemployed. Estimated to cost \$10 million a year and scaled down from another Bentsen proposal, the Finance provision would require state Medicaid plans to cover pregnant women who would otherwise be eligible as soon as their child is born. In addition, Sen. Cranston is pushing for Senate approval of legislation similar to Waxman's CHAP proposal.

On another front, the House has already approved a provision that would increase funding for the maternal and child health block grant by \$110 million bringing the authorization to \$483 million in fiscal 1984. The provision is attached to the House-enacted Health Insurance for the Unemployed bill, however, which is stalled in the Senate and may never be enacted.

Sens. Bentsen, Bumpers and Cranston have introduced a similar provision in the Senate which could be asked to vote on the measure as part of a budget reconciliation measure.

Supporters of the proposals claim that failure to enact them will cost federal and state governments millions of dollars a year, primarily in treatment of underweight babies who, by some estimates, are more than twice as likely to be born to mothers who don't receive prenatal care as to mothers who do.

About one in 20, or 185,000, women in the United States receive no prenatal care until the last trimester of care, according to the National Center for Health Statistics, and among black and hispanic women, about one in ten forego care until the last three months of pregnancy. Many (at least 25% in one New York study) have sought the care but been turned away when they are unable to pay for it.

announcements

CALENDAR OF MEETINGS

NATIONAL

Feb. 2-5

Southwest Allergy Forum (sponsored by Baylor College of Med.)—Westin Galleria Hotel, Houston

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|-----------------|--|------------------|---|
| Feb. 5-8 | Interventional Neuroradiology Seminar (sponsored by Univ. of S. Florida)—Lake Buena Vista, Fla. | Feb. 27-March 1 | Multidisciplinary Microsurgery (sponsored by Southern Baptist Hosp. and Louisiana State Univ.)—Mardi Gras, New Orleans |
| Feb. 5-9 | Lake Tahoe Winter Vitreoretinal Symposium (sponsored by Univ. of California Davis)—Tahoe City, Calif. | March 3-7 | American Academy of Allergy and Immunology—Palmer House, Chicago |
| Feb. 6-8 | American Society for Surgery of the Hand—Hilton, Atlanta | March 3-8 | American Society of Clinical Pathologists—Las Vegas Hilton |
| Feb. 8-9 | American Orthopaedic Foot Society—Atlanta | March 4-9 | Mammoth Mountain Emergency Medicine Ski Conference (sponsored by Medical Conferences, Inc.)—Mammoth Lakes, Calif. |
| Feb. 9-11 | Society of University Surgeons—Palmer Hotel, Chicago | March 8-11 | American Psychosomatic Society—Hyatt on Hilton Head Island, Palmetto Dunes, S.C. |
| Feb. 9-14 | American Academy of Orthopaedic Surgeons—Georgia World Congress Center, Atlanta | March 11-15 | Society of Toxicology—Atlanta Hilton |
| Feb. 15-17 | National Cancer Communications Conference (sponsored by NCI and ACS)—Washington, D.C. | March 12-16 | International Academy of Pathology, United States-Canadian Division—San Francisco Hilton |
| Feb. 15-18 | American Association of Orthopaedic Medicine—Scottsdale, Ariz. | March 14-16 | American Society for Clinical Pharmacology and Therapeutics—Atlanta |
| Feb. 15-19 | American College of Nuclear Physicians—Sheraton Harbor Island, San Diego | March 14-18 | American Medical Student Association—Hyatt Regency, Crystal City, Washington, D.C. |
| Feb. 16-17 | Acquired Immune Deficiency Syndrome Symposium (sponsored by Drug Development Institute of Amer.)—New York | March 15-17 | Advances & Improvements in Hernia Surgery (sponsored by South Miami Hosp.)—Doral Beach Hotel, Miami Beach |
| Feb. 18-25 | Winter Symposium of Hematologic Malignancies (sponsored by Univ. of Arizona Cancer Ctr.)—Snowbird, Utah | March 18-22 | American Radium Society—Hotel del Coronado, San Diego |
| Feb. 24-26 | Virginia Chapter, American Academy of Pediatrics/Virginia Pediatric Society Annual Meeting—Williamsburg Conference Center, Williamsburg, Va. | March 25-28 | Society of Air Force Physicians—Antlers Hotel, Colorado Springs |
| Feb. 26-March 1 | American Association for Pediatric Ophthalmology and Strabismus—Marriott's Mark Resort, Vail, Colo. | March 25-29 | American College of Cardiology—Dallas |
| | | March 29-April 1 | National Symposium on Hair Replacement Surgery (sponsored by Amer. Acad. of Facial Plastic and Reconstructive Surgery)—Palm Springs, Calif. |
| | | March 30-April 4 | American Society of Abdominal Surgery—Marriott, New Orleans |

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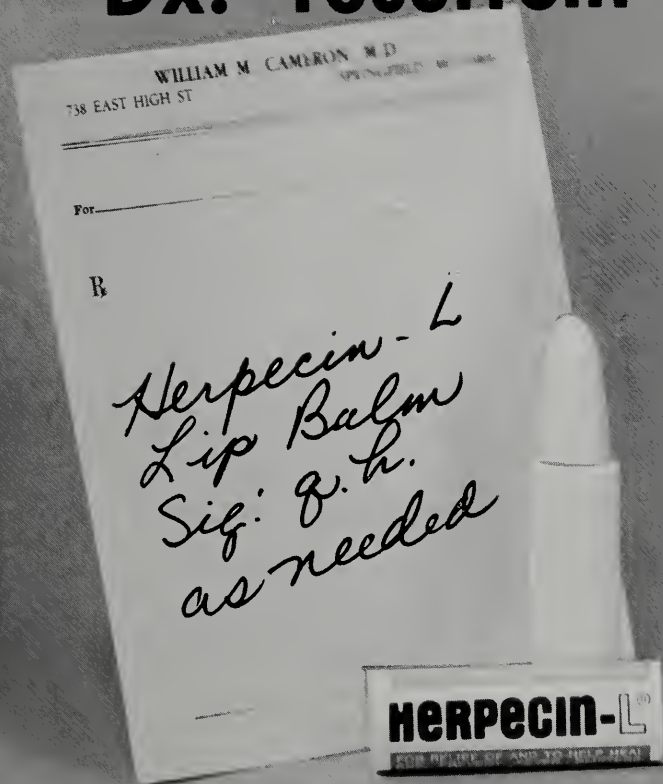
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Forty-Five Years Against Syphilis in Memphis— Success or Failure?

HENRY D. PACKER, M.D., D.P.H.

This paper will endeavor to present a historical perspective of the syphilis problem in Memphis and Shelby County during the past 45 years, highlighting efforts by the local health department to control the problem during this period, and the degree of success achieved. Statistics on reported cases of syphilis during this period of time, by stage of disease, are shown in Fig. 1. This information was obtained by a study of individual annual reports since 1938, as well as an earlier report covering a ten-year period. The highest number (Fig. 1) is close to 10,000, representing total cases of syphilis reported in 1942, whereas the lowest is 28, representing primary and secondary cases of syphilis reported in 1960. In view of this wide range, it was necessary to use a logarithmic scale for the chart.

With the high figure of 665 cases of primary and secondary syphilis occurring in 1980 over 23 times the low figure of 28 in 1960, one may wonder if anything worthwhile has been accomplished by the control program. This is a justifiable question, and an attempt will be made to identify factors that may have played a role in producing periods of unusually high or unusually

low incidence of the disease, so that this information can be applied to future control efforts.

Before 1938, the first year indicated on the chart, there was a single clinic for the treatment of syphilis located in the City of Memphis Hospital. The health department did not provide treatment and had no full-time director of a control program. The treatment of syphilis consisted of 30 weekly injections of an arsenical and 40 of a bismuth preparation, given in alternating courses over a period of one and one-half years. To achieve noninfectiousness required a minimum of 20 injections of each. During the five-year period before 1938, between 3,000 and 4,000 persons were treated in this clinic each year. There was no follow-up program to keep patients under treatment while they were infectious. Due to the conspiracy of silence surrounding the disease at that time, there was no educational program directed toward it.

In 1937, the Surgeon-General of the United States cancelled an important radio address on important public health problems when he was not permitted to mention the word "syphilis" over the radio. Much publicity was given to this, and his action served to break the silence and focus attention upon this neglected problem, and a large appropriation of money was subsequently made by Congress under the LaFollette-Bulwinkle Bill. Among the facts brought to light was

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that over 9,000 persons were committed to mental institutions in the United States each year due to central nervous system syphilis that could have been prevented by treatment. The cost to the taxpayer of this institutionalization was tremendous. Progression of the disease to involve the central nervous system represented failure to receive adequate treatment.

A local study made in 1938 revealed that less than 15% of the patients receiving treatment at the City of Memphis Hospital syphilis clinic received enough treatment to render them noninfectious.¹ Among the reasons given by patients for discontinuing treatment was the severe reaction that frequently followed the injection of arsenic or bismuth. This explains why so many patients went on to develop central nervous system or cardiovascular syphilis. During World War II, an entire floor of the Gailor Psychiatric Hospital in Memphis was devoted to treating cases of neurosyphilis with malarial fever therapy, the best treatment at that time. This was carried out under a contract with the military services to find a substitute for quinine and atabrine, no longer available, that could be used by our troops fighting in malarious areas of the world. Over 500 patients with neurosyphilis were treated on this service over a three-year period.^{2,3}

We will now focus upon a few specific periods in order to illustrate some of the problems that confronted the control program at different times, and the measures taken to resolve them. It should be pointed out that the number of cases of syphilis indicated for each year on the chart (Fig. 1) represents the contribution of three components, each of which contributed varying proportions during different years. One component consisted of self-referred patients who took the initiative in reporting to the clinic where treatment was provided, usually because they had signs or symptoms of syphilis. Another component was contributed by contact investigation, which was initiated in 1938 by the control program, and will be referred to later. A third component was serologic surveillance, or "mass testing," to uncover unrecognized, untreated cases of syphilis. The initiative in promoting the latter two components was taken by the health department; they made a significant contribution to the number of cases of syphilis brought to treatment during the early stages of the infection. The local

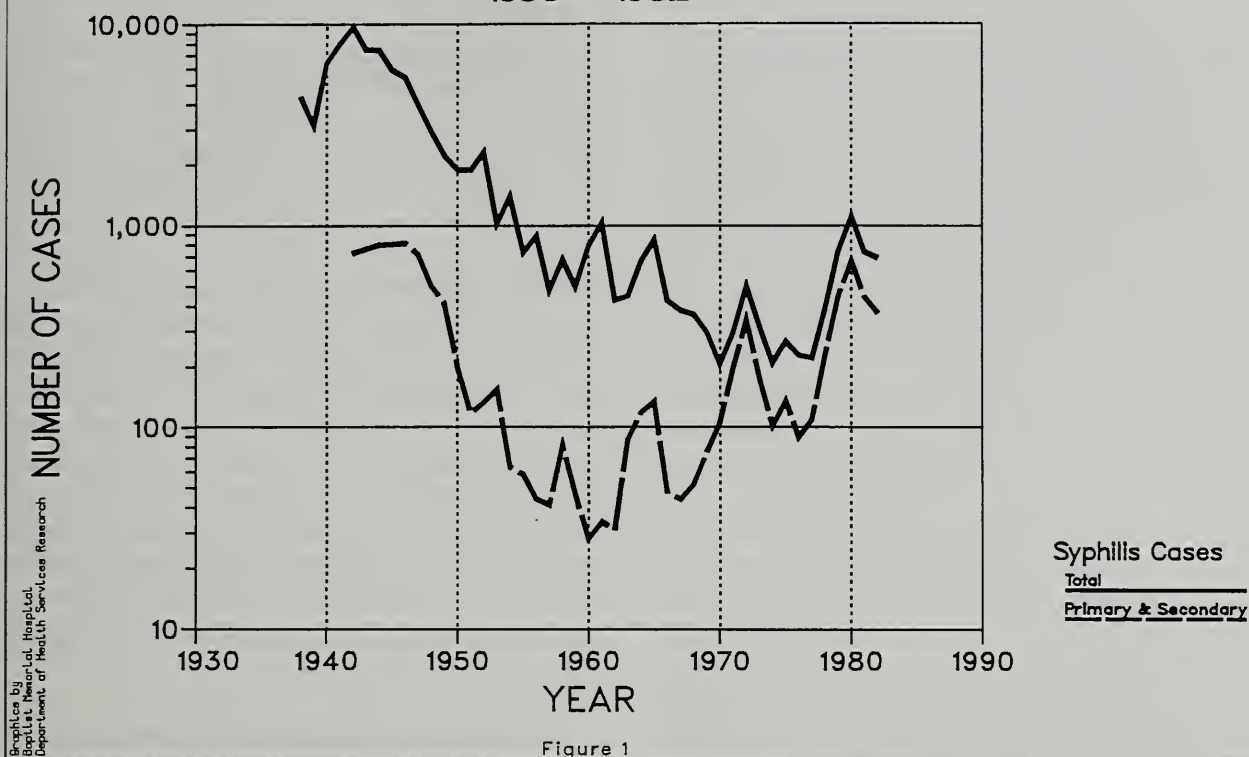
health department was enabled to promote activities in relation to these two components as a result of a large grant received from the Public Health Service to establish a cooperative program between the University of Tennessee and the local health department to try to reduce the high syphilis rate in Memphis, which was one of the highest of any American city.

Consideration will be given first to the role of serologic surveillance in the control program. The wide gap between total cases of syphilis and those in the primary and secondary stages indicated in Fig. 1 for 1942 indicates that less than 1% of these patients were still in the primary or secondary stage when brought to treatment. A program of serologic surveillance of large segments of the population was undertaken during the early stages of the program to identify this large reservoir of untreated cases. By 1942, a high of 9,646 cases were brought to treatment, one-third of them identified by the serologic surveillance program of the Selective Service System of World War II, which tested all registrants between the ages of 18 and 35 for syphilis.

The productiveness of this program in finding early syphilis gave much impetus to the serologic surveillance program of the health department, which began to emphasize the importance of the "health card" as a prerequisite for employment in industry or the home. The Memphis Junior Chamber of Commerce took on the project of promoting the program for serologic testing of foodhandlers and house servants. Newspaper "Help Wanted" advertisements uniformly indicated that a health card was a prerequisite for the job listed. Blood testing services were made widely available throughout the community and in the rural county, where a mobile unit was used for testing and treatment.

The results of this highly publicized, broad-based serologic screening program revealed the extent of syphilitic infection in the population, and gave support to the Surgeon-General's statement, which was challenged by many, that one person in ten in the United States either had syphilis or would eventually have it. For example, in members of the black population who were tested in Memphis, 29.1% of Selective Service registrants, and 31.6% of persons given employment examinations, were found to have positive tests for syphilis. A similar infection rate, 30.2%, was found in routine testing of black prenatal patients at the City of Memphis Hospital.

Cases of Primary & Secondary Syphilis and Total Cases of Syphilis, Memphis & Shelby County 1938 - 1982



The treatment of this large number of patients and the follow-up program for infectious cases with lapsed treatment imposed a tremendous burden upon the health department. During 1941, public health nurses made over 11,000 home visits in an effort to restore to treatment patients with infectious syphilis. Infectious patients with primary and secondary stages of the disease who did not return to treatment were picked up by the police department and quarantined in special wards at the Shelby County Hospital until adequate treatment was received. The health department collaborated with the local police department in a drive against prostitution, which resulted in the closing of all houses of prostitution and the treatment of all infected prostitutes at the Penal Farm. These intensive efforts at case-finding and case-holding until adequate treatment was obtained resulted in national recognition of the program. Surgeon-General Parran of the Public Health Service observed that "The Memphis program has the soundest base of any large city on record. If a program of this type could be carried out vigorously in every city of the nation, we could lop another ten years off

the time limits for making syphilis and gonorrhea rare diseases."

Turning now to a consideration of the role of contact investigation in the control program, it should be pointed out that throughout the period under observation serologic surveillance brought to treatment each year more early cases of syphilis than did contact investigation.^{4,5} Serologic surveillance can be applied routinely to large segments of the population, and serologic tests can be performed upon large numbers of specimens at a time. Premarital testing, the testing of patients on admission to hospitals, and testing of pregnant women are examples of this. Contact investigation involves an individualized, time-consuming interview and follow-up of persons named as contacts. For the number of persons examined it yields more early cases of syphilis, but the total yield of such cases by the serologic surveillance process is greater. Sweden pioneered in making contact investigation a part of their control program. In this country, Munson⁶ promoted the concept of "sole leather epidemiology" whereby efforts were made to identify and

bring to treatment through field investigation sources of infection named by clinic patients.

When this procedure was first introduced in the Memphis control program in 1938, it did not prove very productive at first.⁷ This was due to the reliance upon clinic physicians to obtain the necessary identification of contacts from patients so that the search for their source of infection could be carried out. It was something they had not been taught in medical school, and they were both reluctant to spend the time required to elicit the information and lacked the expertise in doing so. It was not until specially trained interviewers began to be utilized that it became productive and began to make an important contribution to case-finding.

A male investigator was first added to the program in 1944. He was a college graduate who had received special training in the interviewing procedure. By 1972 there were 14 investigators in the program, which probably explains the peak of primary and secondary cases observed during that year (Fig. 1). Today, there are over twice as many investigators working in the Memphis Clinic for Sexually Transmitted Diseases in the health department as there are physicians and nurses, indicating the importance attached to this activity. The 1982 annual report of the health department indicates that of 672 cases of early syphilis brought to treatment, 166, or 24.7%, were the result of contact investigation, 246, or 36.6%, were the result of serological surveillance, and 260, or 38.7%, were self-referrals to the clinic. During that year, however, contact investigation brought to treatment more cases of primary and secondary syphilis (85 cases) than did serologic surveillance (70 cases).

Of considerable historical interest is the dramatic effect that resulted from the introduction of penicillin therapy for syphilis in 1943. Treatment with the early forms of penicillin required hospitalization, and frequent injections of the short-acting penicillin forms then available. It required considerable research before the long-acting benzathine penicillin G (Bicillin) now in use was finally developed about 1960; it so revolutionized the treatment of syphilis that it became one of the easiest diseases to cure effectively. This revolutionary form of therapy had a profound effect upon the trend of cases reported during the years following 1947. By 1960, the number of

cases of reported primary and secondary syphilis had fallen to 28, the lowest figure for the 45-year period. This represents a 96% decline from the 1942 level.

However, there is reason to suspect that this level does not give a completely true picture of the extent to which new infections were occurring in the population. A real decline undoubtedly did occur, mainly as a result of the widespread use of penicillin for many diseases, and especially for gonorrhea. Penicillin not only cured gonorrhea, which was over 20 times as prevalent as syphilis, but also aborted incubating syphilis, when both diseases were acquired at the same time. The plateau of total cases of syphilis observed in Fig. 1 between 1955 and 1965, however, suggests that many cases of primary and secondary syphilis were occurring during the period of sharp decline, but were not being treated, or were inadequately treated, until they reached a later stage, and it is possible that there was much masking of early syphilis by inadequate treatment.

Another factor that probably accounted for the low number of primary and secondary cases of syphilis reported around 1960 was that with the simplified treatment available, more patients were being treated by private physicians. It was estimated that this occurred in over 80% of cases of syphilis, and reporting of these cases was notoriously poor, possibly only one case in ten being reported, even though reporting was required by law.

Still another factor contributing to the decline was the curtailment of funds available to health departments for syphilis control, in exuberant anticipation of the eradication of syphilis by the miracle drug, penicillin. Investigative staffs were reduced, with obvious effects upon the contact investigation program and the number of cases of primary and secondary syphilis uncovered by its efforts. The Venereal Disease Division of the local health department ceased to exist as a separate unit.

Following these events, a sharp rise in primary and secondary syphilis occurred during the following years, resulting in the reestablishment of the Division of Venereal Diseases, and an increase in the number of investigators. A program was initiated to improve the reporting of syphilis by physicians in private practice by having investigators visit those who treated many cases of syphilis, explaining the control program to them.

soliciting their assistance, and providing them with free laboratory services and drugs. As a result, in 1964 no less than 55% of syphilis in all stages was reported by private physicians, including 29% of early cases. By 1966, private physicians were reporting 37% of early cases of syphilis, reflecting the value of these personal contacts with them. This may account for the spike in primary and secondary cases of syphilis, which reached its peak in 1965.

The decade between 1970 and 1980 reveals the best performance of the program for early case-finding of any period during the 45 years. The gap between total cases of syphilis and primary and secondary cases (Fig. 1) is narrower than during any other period. Although the 668 cases of primary and secondary syphilis reported in 1980 is as high as the number reported in 1947, when 669 cases were reported, the latter figure represents less than 2% of total cases of syphilis reported during that year, whereas the figure for 1980 represents almost two-thirds of the total cases. This represents a definite achievement of the program in bringing early infectious cases to treatment. It explains why medical students usually go through medical school today without seeing a single case of syphilis of the central nervous system, cardiovascular syphilis, or congenital syphilis, diseases commonly seen during the earlier period. Another statistic of interest is that the death rate from syphilis in Memphis and Shelby County in 1938 was 27.7 per 100,000 population, representing 81 deaths, whereas there were no deaths from syphilis here in 1982.

The low point for syphilis incidence during the decade 1970 to 1980 was reached in 1976, with fewer than 100 cases of primary and secondary syphilis being reported during that year. An important contributory factor to this was the launching of an intensive case-finding program for gonorrhea in women to cope with the problem of pelvic inflammatory disease, whose importance had been demonstrated by studies carried out here under contract with the Center for Disease Control.⁸ Starting with the screening of 43,888 women for gonorrhea in 1971, by 1976 the number tested had reached 82,237, with 9.5% being found infected with gonorrhea. The treatment of this large number of infected persons and their contacts with penicillin undoubtedly had some effect upon the incidence of syphilis. This is evident from the observation that the smallest number of cases of primary and secondary syphilis

were reported during 1976 and 1977, the years of the highest number of cases of gonorrhea in this decade, when over 16,000 cases each year were treated.

It appears that a reasonable degree of success has been achieved, and that the syphilis problem is now under reasonable control in Memphis and Shelby County. A considerable number of cases of primary and secondary syphilis continue to occur, but since they constitute a high proportion of the total cases of syphilis, this may reflect early detection as a result of effective contact investigation of known infectious cases. Fortunately these stages of the disease can be easily treated and cured so that they do not progress to the disabling forms of late syphilis so frequently observed in earlier years.

Future attention probably needs to be directed toward making the serologic surveillance program more selective in its choice of persons who are to be routinely tested, especially with regard to persons in older age groups. Testing of persons over the age of 50 has not been productive in finding early cases of syphilis, yet a large number of persons in this age group are tested each year, especially in hospital serologic surveillance programs. For example, over 150,000 persons were tested for syphilis on admission to private hospitals in Memphis in 1982, yet only one person over the age of 50 was found to have early syphilis.

The words of Fracastorius, who in the 17th century gave syphilis its name in a poem he wrote about a shepherd who had acquired the disease, should be remembered: "This disease is eternal. Do not hope to ever see the end of this scourge that is afflicting you."

Acknowledgment

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Nontraumatic Rhabdomyolysis and Acute Renal Failure Associated With Oral Phenmetrazine Hydrochloride

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Introduction

Nontraumatic rhabdomyolysis with acute renal failure is a condition about which there has been an increased awareness in recent years. Multiple etiologic factors that may lead to nontraumatic rhabdomyolysis and acute renal failure have been documented.¹ Stimulant drugs can lead to muscle injury and nontraumatic rhabdomyolysis, and rhabdomyolysis has been reported following use of amphetamines.^{2,3} Phenmetrazine hydrochloride (Preludin) is an agent closely related to amphetamines and is taken by many drug users as an amphetamine substitute.⁴ This report concerns rhabdomyolysis and acute renal failure following oral ingestion of a large quantity of this agent.

Case Report

This 16-year-old white male cigarette smoker had a long history of psychiatric illness and drug abuse. Medication prior to onset of the present illness included thioridazine (Mellaril) 50 mg orally twice a day. On July 3, 1980, he ingested 18 75-mg tablets of phenmetrazine hydrochloride (Preludin). Three days later he developed epigastric pain, weakness, general malaise, nausea, and vomiting. When seen in the emergency room of another hospital he had hematuria, pyuria, and albuminuria. He was begun on ampicillin for a possible urinary tract infection, but the next day his abdominal pain worsened, and he was admitted to Park West Hospital in Knoxville, Tenn. His blood pressure was 180/110 mm Hg and he had epigastric and bilateral costovertebral angle tenderness.

Laboratory data included a hemoglobin of 14.8 gm/dl. His hematocrit was 43.4%, and white blood cell count 20,900/cu mm, with 73% segmented neutrophils, 12% bands, and 15% lymphocytes. Urinalysis revealed 4+ proteinuria and occult blood, with many red and white blood cells and a few deeply pigmented granular casts. His BUN was 65 mg/dl with a serum creatinine of 15.1 mg/dl. Calcium was 8.8 mg/dl, phosphate 6.9 mg/dl, and uric acid 11.7 mg/dl. LDH was mildly elevated. His C-reactive protein was positive at a titer of 1:1024. Sedimentation rate was 44 mm/hr.

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The next day he became oliguric, his edema worsened, and he developed pulmonary vascular congestion with dyspnea. He was transferred to University of Tennessee Memorial Hospital in Knoxville for hemodialysis. Upon arrival there his hemoglobin was 15.7 gm/dl, hematocrit 45.9%, and white blood cell count 30,800/cu mm, with 77% segmented neutrophils, 5% bands, 6% lymphocytes, 11% monocytes, and 1% eosinophils. His urine was straw-colored and cloudy with 4+ albuminuria, 55 to 60 white and 100+ red blood cells per high power field, and 2+ bacteriuria. His serum calcium was 9.1 mg/dl, phosphorus 6 mg/dl, uric acid > 1,200 mg/dl, and LDH twice normal. FANA, steptozyme, and HAA were negative.

The patient was treated with cimetidine (Tagamet) and antacids for epigastric pain and vomiting, hemodialysis was performed on three occasions, and prednisone was administered for severe diffuse muscular pain. Percutaneous renal



Figure 1. Focal acute tubulointerstitial nephritis with tubulorrhexis and degeneration (hematoxylin-eosin, X288).

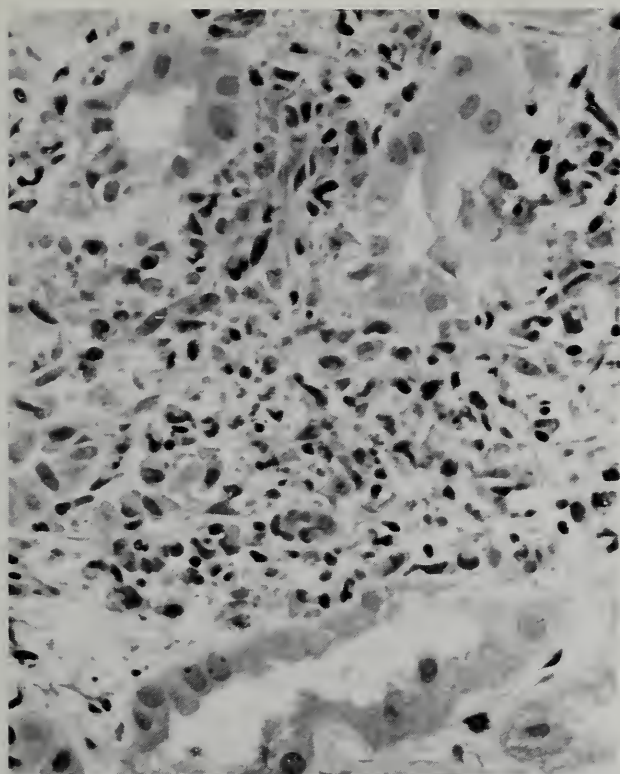


Figure 2. Higher magnification of Fig. 1 showing a polymorphous infiltrate of lymphocytes, plasma cells, neutrophils and cellular debris. Eosinophils are present but not prominent (hematoxylin-eosin, X450).

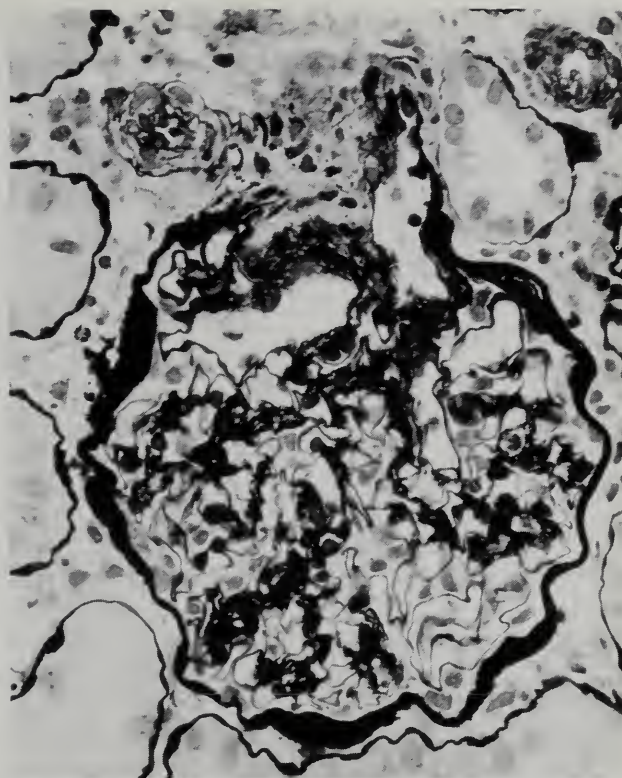


Figure 3. Glomerulus and afferent arteriole. There is slight increase in mesangial matrix and focal thickening of Bowman's capsule. Note the luminal narrowing of the arteriole in the absence of mural hyaline (methenamine silver, X450).

biopsy revealed focal tubulorrhexis, with a marked infiltrate comprising lymphocytes, plasma cells, eosinophils, and neutrophils (Figs. 1 and 2). There was slight interstitial edema, and luminal narrowing of the arteries and arterioles was prominent, but there was no intimal or mural disease. The glomeruli were essentially unremarkable (Fig. 3). There was no immunofluorescence with anti-IgG, IgA, IgM, IgE, C'3, C'4, C'5, C1Q, properdin, immunofibrin-fibrinogen, or alpha₂ globulin, and electron microscopy correlated with the light microscopic findings.

Over the next few days his renal function improved, and after stabilization he was discharged from the hospital. His serum creatinine was 1.6 mg/dl at six days following discharge, and at eight months was 0.9 mg/dl.

Discussion

Increased knowledge regarding the pathophysiologic features of nontraumatic rhabdomyolysis has led to an increasing awareness of this disorder. The condition may result from multiple factors, including amphetamine ingestion.¹⁻³ The exact pathogenesis of amphetamine rhabdomyolysis is unclear, but probably relates to excessive muscular fasciculations.³

Phenmetrazine is a drug closely related to the amphetamines.⁴ It is a popular street drug that is used both alone and in combination with narcot-

ics such as heroin, and is frequently used as a substitute for amphetamines.

Laboratory abnormalities in this patient compatible with acute rhabdomyolysis include a marked rise in CPK, hyperphosphatemia, relatively low serum calcium, and marked hyperuricemia.⁵ It is likely that marked muscular fasciculation led to rhabdomyolysis, which subsequently produced the renal failure. Acute renal failure may be associated with abuse of amphetamine substitutes, even those taken orally, and this should be considered in any patient with acute rhabdomyolysis where the etiology is unclear.

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Response to High Blood Pressure Screening and Referral by Medical Students in Rural Communities

BRAD BLANKENSHIP and ARDEN D. BARNETT, JR.

Introduction

Hypertension is controllable in the majority of patients if it is detected and treated. The first step, identification, has been evaluated using many different screening models. The second step, drug compliance, has also been examined extensively, but a gap remains. Referral compliance has been largely overlooked. After a screening program identifies a person with increased blood pressure, the patient must perform one essential act before the problem of drug compliance can be approached. He must act on the advice of the screening personnel and make contact with some health care provider for treatment. This action constitutes a positive referral compliance. The purpose of this study was to evaluate the referral compliance of a screening project covering several rural West Tennessee counties. It is staffed by medical students and sponsored by the University of Tennessee Center for the Health Sciences in Memphis. Before citing the actual compliance figures, a description of the medical student hypertension program is in order.

UTCHS Hypertension Screening Project

The hypertension screening program, organized by the University of Tennessee Department of Family Medicine, is one of eight screening projects in the state. Begun in the summer of 1979, project personnel have since conducted a screening in the spring and summer of each year.

Before each project begins, the selected medical students undergo a two-day orientation designed to provide a basic understanding of high blood pressure, to familiarize them with the targeted counties, and to acquaint them with the

potential resources available in these rural areas. Close cooperation between the Department of Family Medicine, the local health departments, and the local physicians facilitates the screening of local industries, civic groups, and businesses. At the screenings, the normotensive individuals are listed on one sheet along with their age, sex, and race, while a separate more inclusive sheet is used for those with elevated blood pressure. These data include patient's phone number, address, prior knowledge of hypertension and medication, sex, age, and race. Subjects are subsequently advised to have a blood pressure recheck as soon as possible and referral sites are documented. As a result of these screenings, many individuals are alerted for the first time to the hazards of high blood pressure, and others are encouraged to have subsequent blood pressure rechecks or to follow their present treatment program.

This project is significant for several reasons. Rural areas offer a challenge to the health profession because they are not in the mainstream of health care access, nor are they targets for the recent "healthy lifestyle" movement. Such a screening program helps to meet these challenges by increasing the combined efforts of various health care professionals. Consequently, the ties between these subsets are strengthened, thereby improving health care. The process also gives many students their only extensive exposure to the rural health care system. After four years, this project has proven valuable in many ways. The research described in this paper is provided to quantify this effectiveness.

Method

The projected research began with the analysis and follow-up of the data sheets (N=5,122) collected at the time of screening in 1981. From this survey the normotensive (N=4,424; 86%) and hypertensive (N=698; 14%) populations

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were established for further evaluation. Of those referred because of an elevated blood pressure (N=698), a stratified, random sample based on age, sex, and race was taken (N=259). This established the sample population to which the following three questions were asked:

1. Have you had your blood pressure rechecked?
Yes () No ()
2. If so, by whom? () Doctor
() Health Department
() Other _____
3. Was a blood pressure recheck the primary reason for your visit?
Yes () No ()

The primary purpose of this study, reflected by Question 1 was to measure and evaluate the referral compliance of the population defined by the screening program. The criteria established for a successful referral was a "yes" answer to Question 1. The secondary purpose, reflected by Questions 2 and 3, was to gain more information

about those people reporting a positive referral compliance. This area of the study sought to establish which facet of the health care profession the sample population solicited for a recheck, and, also, if a blood pressure recheck was the primary reason a health care provider was contacted.

A four-pronged attack was instituted in order to collect this information from a maximum percentage of the sample population. This process basically consisted of two postcard mailings, one series of telephone calls, and, finally, the use of local health agencies if all other means failed. The two mailings, sent out approximately two months apart, both contained a simple letter of explanation and a preaddressed, prepaid postcard. If neither of these two mailings were successful, a subsequent series of phone calls was placed to the person's residence and/or place of business. If this third step also failed, help from local health

TABLE 1

RESPONSES TO QUESTION 1—"HAVE YOU HAD YOUR BLOOD PRESSURE RECHECKED?"—BY SEX AND BY RACE

	Responses By Sex			Responses By Race		
	No. (%) Male	No. (%) Female	No. (%) Total	No. (%) Black	No. (%) White	No. (%) Total
Yes	86(77)*	92(95)*	178(85)	84*(79)	94*(91)	178(85)
No	26(23)	5(5)	31(15)	22 (21)	9 (9)	31(15)
			259(100)			259(100)

*P<.05

TABLE 2

RESPONSES TO QUESTION 2 BY RACE/SEX

	No. (%) White Male	No. (%) White Female	No. (%) Black Male	No. (%) Black Female	No. (%) Total
Yes	50(88)	44(96)	*36(65)	48(94)	178(85)
No	7(12)	2(4)	19(35)	3(6)	31(15)
					259(100)

*P<.05

TABLE 3

RESPONSES TO QUESTION 1 BY AGE

	No. (%) <30	No. (%) 30-49	No. (%) 50-69	No. (%) >70	No. (%) Total
Yes	16(64)	54(86)	82(89)	26(90)	178(85)
No	9(36)	9(14)	10(11)	3(10)	31(15)
					259(100)

HIGH BLOOD PRESSURE SCREENING/Blankenship

officials was sought to obtain personal contact. In summary, every available means was used to reach and survey the selected sample populations.

Results

Of the 259 people in the sample population, contact was established with 209 (81%). From the remaining population of 50, which constituted 19% of the sample, 26 (10%) were confirmed as having either moved or died. Only 24 (9%) were unaccounted for. All of those contacted responded either "yes" or "no" to Question 1: "Have you had your blood pressure rechecked?" One hundred seventy-eight (85%) of the 209 responded "yes," while 31 (15%) responded "no." The

demographics of this question are shown in Tables 1-3.

All of the 178 people reporting a positive referral compliance were then asked Questions 2 and 3:

2. If so, by whom? () Doctor
 () Health Department
 () Other _____

Eighty percent of the total solicited a private physician, 9% used the health department, and 11% obtained some other means of health care. Of the last, 35% were rechecked by a relative, 35% used an automated blood pressure machine (the kind found in many department stores), and 30% used miscellaneous other means. The statistical charts for the second are provided by categories of sex, race, and age (Tables 4-6).

3. Was a blood pressure recheck the primary reason for your visit? () Yes () No

TABLE 4

RESPONSES TO QUESTION 2—"BY WHOM WAS YOUR BLOOD PRESSURE RECHECKED?"—BY SEX AND BY RACE

	Responses By Sex			Responses By Race		
	No. (%) Male	No. (%) Female	No. (%) Total	No. (%) Black	No. (%) White	No. (%) Total
Private Physician	71(82)	71(77)	142(80)	67(80)	75(80)	142(80)
Health Department	5(6)	11(12)	16(9)	11(13)	5(5)	16(9)
Other	10(12)	10(11)	20(11)	6(7)	14(15)	20(11)
			178(100)			178(100)

TABLE 5

RESPONSES TO QUESTION 2 BY RACE/SEX

	No. (%) White Male	No. (%) White Female	No. (%) Black Male	No. (%) Black Female	No. (%) Total
Private Physician	42(84)	33(75)	29(81)	38(79)	142(80)
Health Department	1(2)	4(9)	4(11)	7(15)	16(9)
Other	7(14)	7(16)	3(8)	3(6)	20(11)
					178(100)

TABLE 6

RESPONSES TO QUESTION 2 BY AGE

	No. (%) <30	No. (%) 30-49	No. (%) 50-69	No. (%) >70	No. (%) Total
Private Physician	11(69)	38(69)	68(83)	25(96)	142(80)
Health Department	4(25)	4(7)	8(10)	0	16(9)
Other	1(6)	12(22)	6(7)	1(4)	20(11)
					178(100)

A total of 116 people (65%) answered "yes," while 62 (35%) answered "no." The demographic breakdown of Question 3 is shown in Tables 7-9.

Discussion

The first question asked of the sample populations was designed to measure referral compliance. Overall, 85% of the people sought some form of medical aid. Statistics show that women reported a higher compliance than men (95% vs. 77%), and the white population reported a higher compliance than black (91% vs. 79%). Both of these facts can be explained by examining the combined race/sex stratum, which shows the referral compliance of the black male population to be significantly lower (65%) than that of any other group. This suggests that the screening project in its present form is less effective in motivating the black male population than in motivating any other group. The issue is important

because this is the group at greatest risk for hypertension and its complications.

When examining this problem, several studies in the literature are helpful. The studies prove the basic validity of this type screening, but they also indicate methods for improvement. Research done by Silverberg¹ as well as the work of Walworth² shows that motivational techniques similar to those used in this screening was conducted in the shopping centers of Edmonton, Ontario, Canada to establish a hypertensive population. At the time of the screening, the hypertensives were advised to have their blood pressure rechecked. The follow-up contact of this population revealed an 88% referral compliance. Walworth, in a similar study, conducted an extensive screening of 47 industries in nine rural New Hampshire areas. The hypertensive population identified was advised to see a health care provider for a blood pressure recheck. The subsequent follow-up revealed a 76% referral com-

TABLE 7

RESPONSES TO QUESTION 3—"WAS A BLOOD PRESSURE RECHECK THE PRIMARY REASON FOR YOUR VISIT?"—BY SEX AND BY RACE

	Responses By Sex			Responses By Race		
	No. (%) Male	No. (%) Female	No. (%) Total	No. (%) Black	No. (%) White	No. (%) Total
Yes	53(62)	63(68)	116(65)	56(67)	60(64)	116(65)
No	33(38)	29(32)	62(35)	28(33)	34(36)	62(35)
			178(100)			178(100)

TABLE 8

RESPONSES TO QUESTION 3 BY RACE/SEX

	No. (%) White Male	No. (%) White Female	No. (%) Black Male	No. (%) Black Female	No. (%) Total
Yes	28(56)	32(73)	25(69)	31(65)	116(65)
No	12(27)	12(27)	11(30)	17(35)	62(35)
					178(100)

TABLE 9

RESPONSES TO QUESTION 3 BY AGE

	No. (%) <30	No. (%) 30-49	No. (%) 50-69	No. (%) >70	No. (%) Total
Yes	9(56)	38(70)	53(65)	16(62)	116(65)
No	7(44)	16(30)	29(35)	10(38)	62(35)
					178(100)

pliance.

Essentially, the same motivational approach was used in all three screening projects described. The method appears effective since compliance figures of 88%, 85%, and 76% are documented. Consequently, this type of program may be considered an effective and useful screening approach. Improvement in the approach is needed to change the relatively low referral compliance (65%) seen in the black male population of the UTCHS program. This figure indicates the need for a more efficient motivational strategy aimed specifically at this population. Two applicable motivational approaches were reported in studies by Ser Vaas³ and Wilber.⁴ In the Ser Vaas study, two types of referral, "Standard Referral" and "Motivated Referral," were compared. Standard referral is essentially the approach used in each of the previously mentioned studies, and consists of advising the patient at the time of the screening to seek help. Motivated referral employs an extensive battery of educational materials to increase the patient's knowledge on the effects of hypertension. These educational materials seem effective because the standard referral group reported a compliance of only 29%, whereas the compliance of the motivated referral group was much higher (79%). This large difference in compliance suggests that greater knowledge of hypertension increases the referral compliance of the screened population.

In the Wilber study, three types of referral motivation were used: a series of letters or phone calls, or verbal contact at the time of screening. The last method, one-time verbal advice, was used in the studies cited previously and resulted in only a 45% referral compliance, but when a series of phone calls was added, this figure increased to 51%. A series of letters gave an even larger increase to 59%. These statistics suggest that additional letters and phone calls are more effective motivational tools than one-time verbal advice alone. These two studies indicate the need for a follow-up study of the UTCHS program to evaluate the impact of these motivational tools on the black male compliance. The details of this study are currently under consideration.

The second question provided data for a comparison of the different facets of the rural health care system. Statistical results on this question show that 80% of the sample population chose a private physician over both the health depart-

ment (9%) and other facilities (11%) such as home screening or automated blood pressure machines. These percentages illustrate that the tendency to solicit a private physician increased steadily with age ($P < .05$). Only 69% of the <30 age group chose a physician over other available means as compared to 96% of the >70 age group. Tendencies for subjects choosing the health department are reversed. Twenty-five percent of the <30 age group went to the health department for a recheck as compared to none of the >70 age group.

The third question was intended to measure the direct influence exerted by the screening program on the patient's behavior. Sixty-five percent of this group said that a blood pressure check-up was the primary reason they contacted the health care system. This number reflects the minimum effectiveness of the program because, even though a blood pressure reading might not have been the primary reason for seeking health care, it probably played a minor motivational role. More than likely, the blood pressure check was one of several factors which persuaded the patient to seek health care.

Conclusion

This research has shown that the use of medical students in hypertension screening is a valid and useful method for hypertension detection and control. The system is open to improvement, especially in the area of motivating the black male population to seek health care once hypertension has been identified. Improvement in this area would greatly increase program effectiveness and could have a positive effect on the community health care system. Data gathered in this study suggest the potential for this screening model which, if instituted in more medical schools, could result in detection and control of countless hypertensive patients nationwide. 

Acknowledgment

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The County Medical Examiners and the Tennessee SIDS Program

The program within the Tennessee Department of Health and Environment to implement the recent legislation regarding Sudden Infant Death Syndrome (SIDS) was reported and described in the *Journal* in November, 1983 (*J Tenn Med Assoc* 76:728, 1983). Since the county medical examiners and the chief medical examiner play important roles in the success of this program, we asked Dr. Jerry Francisco to explain the implementation. His report follows:

The death of a child, older than a newborn but less than one year of age, who has previously not been seriously ill and whose thorough autopsy examination does not reveal standard causes for death is an example of the SIDS.

These criteria have become acceptable for a recognized disease entity and classified in the International Classification of Disease. It is the only entity in this classification system that embodies an autopsy as mandatory for diagnosis of the syndrome complex.

The Post Mortem Examination Act of 1961 created a system of county medical examiner offices with an office of chief medical examiner within the Department of Public Health (now Health and Environment). The chief medical examiner is an educational officer for the various county medical examiners who, in turn, are responsible for carrying out the mandates of the state law in their respective areas.

With the passage of the SIDS legislation of 1983, the logical system within government to implement this act was the county medical examiner group. Prior to this legislation, many county medical examiners were concentrating their efforts on the homicides or suspected homicides. Although this is proper activity for a county medical examiner, it is not his most significant function since he must investigate a wide

variety of deaths in his community. In Tennessee, it has represented between 7,000 and 8,000 per year, of which homicide deaths constitute approximately 10%. It is projected that SIDS events should constitute approximately 3% of the total investigated deaths in the state.

The procedure will vary slightly from county to county. In general, whoever has knowledge that a child has died under the age of three years, as set by the statute, must report this death to the county medical examiner if there is reason to believe the death is sudden, suspicious, by violence or casualty, or unusual. Once such a death has been reported it is the responsibility of the county medical examiner to conduct an investigation. If the medical examiner determines that the death is a suspected SIDS, he will offer the parents the opportunity to have an autopsy performed, explaining the reasons and purpose and emphasizing that there will be no cost to the parents for the postmortem examination. If the parents refuse and there is no reason to suspect a violent death (child abuse) the medical examiners should record the refusal on the report form and conclude the investigation.

If, however, the parents consent, the county medical examiner shall arrange for the autopsy to be performed. Most pathologists in this state have agreed to cooperate and perform these autopsies.

Once the gross examination is completed, the pathologist should notify the county medical examiner regarding the result. If the death appears to be due to SIDS, the county medical examiner should communicate this information to the parents and simultaneously notify the county or regional health department SIDS coordinator, who is now responsible for contacting and counseling the parents during the grief process. The SIDS coordinator is also responsible for collecting a variety of information that should be given to the

From the Tennessee Department of Health and Environment, Nashville.

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Approach to the Elderly Confused Person

Part I—Evaluation and Consideration of Delirium

WILLIAM B. APPLGATE, M.D. and DERENE AKINS, M.D.

When a physician is first confronted with an elderly patient suspected of being confused, disoriented, or forgetful, several questions must be answered. First, the physician must decide whether or not the mental changes could be related to age alone. Second, the physician must decide if the patient is acutely confused or delirious, since delirium has a higher probability of having an underlying organic or medical problem as the cause. Finally, the physician must decide whether the process is reversible or irreversible, and counsel the patient and family accordingly.

As humans age, we all undergo some loss of brain mass due to atrophy, approximately 10% to 20%, over a lifetime. In addition, there is a decline with age in the density of neurons in certain areas of the brain such as the hippocampus, which may be responsible for recent memory.¹ Studies of changes in human intellectual function with age indicate that elderly persons tend to be somewhat slower and less flexible in their thought processes, and are more inclined to forget small things such as names, dates, etc. Performance on some complicated psychological tests, particularly if the test is timed, tends to decline with age. On the other hand, verbal abilities, reading comprehension, and remote recall are not affected much. Although an older person may become somewhat more forgetful, substantial confusion, disorientation, or difficulties with standard mental status questions are not related to the aging process; these problems are indicative of underlying disease. Physicians should be aware that standard mental status testing can misclassify patients in either direction; at times there will be false-positives and at times false-negatives.²

False-positives on a mental status test (an elderly person is erroneously classified as delirious or demented) can occur when the older person has problems with either visual acuity or, in particular, hearing. Older persons with presbycusis and impacted ear wax may attempt to guess the meaning of questions they cannot hear rather than admitting to a hearing deficit. False-negatives (an elderly person is erroneously classified as not delirious or demented) may occur if the physician does not perform a structured mental status examination. Persons who are slowly losing their cognitive abilities may try to throw the examiner off the track by turning the question around or by angrily stating "How dare you ask me such a simple question!" The physician should check several aspects of cognitive function, including recent and remote memory, comprehension, abstraction, judgment, and orientation. Testing constructional ability by asking the patient to draw the face of a clock is often helpful. As a general rule, the older person should maintain these basic functions and should miss no more than two out of ten questions on a standard mental status questionnaire.

If testing is abnormal, the physician should next decide if the patient is acutely confused or delirious. Elderly persons may become confused if they develop a medical ailment or metabolic derangement. At least 50% of elderly persons who become acutely confused will return to their premorbid mental status if their underlying medical problem is detected and solved. One should be aware, though, that it may take several days to a few weeks in the home environment before baseline mental status is achieved again. Delirium or acute confusion will usually differ from progressive dementia in that in the former the patient will have fluctuating levels of alertness and

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may be either somnolent or distracted to the point that all interaction is impossible.

The list of potential causes for acute delirium in the elderly is extremely lengthy and the physician should institute a thorough evaluation. Toxicity from common medications (sedatives, hypnotics, antihypertensives, medicine with anticholinergic side effects, anticoagulants, antidepressants, certain analgesics, ethanol misuse and numerous others) is a frequent offender and any potential problem medication should be stopped. Other common causes of delirium include infection or sepsis (with or without fever), dehydration (may occur with fecal impaction), myocardial infarction (the pain may be atypical), an abdominal catastrophe (the local findings may be

subtle), and cerebrovascular accident.³ It is said that acute delirium is to the elderly adult what febrile seizure is to the infant. Evaluation of the delirious patient would include a blood count, urea nitrogen, blood sugar, electrolytes, liver function tests, serum calcium, thyroid function tests, erythrocyte sedimentation rate, urinalysis, and chest x-ray. Other tests, including a lumbar puncture and CAT scan of the brain, would depend on the clinical situation.

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county medical examiner to forward to the office of the chief medical examiner.

The purpose of the information transfer is to provide a central repository for data surrounding the SIDS incident. It is hoped that such information, which will be made available to researchers, will provide clues that can lead eventually to prevention of these tragic events.

If the program is to be successful it will require full knowledge dissemination, active cooperation by a variety of persons, and thorough investigation of all SIDS events. The medical profession has a major responsibility for this success by functioning as active medical examiners and cooperating with the county medical examiners.

APRIL 1984						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
			TMA 149TH ANNUAL MEETING Hyatt Regency Hotel—Knoxville			
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	NOTES				

Multiple Sclerosis

CHARLES E. KOSSMANN, M.D., Editor

TERRI JERKINS, M.D.
(Resident Physician)

A 32-year-old white woman complained of intermittent horizontal double vision for 16 months. Soon after onset, she had been diagnosed by her local doctor as having a left sixth nerve palsy. Cranial computed tomography, an electroencephalogram, and an intravenous edrophonium test for myasthenia gravis were normal or negative. Five months later, weakness of the right arm and soon thereafter weakness of the right leg appeared. Five months later and seven months prior to admission she experienced episodes of urinary urgency and incontinence. She was admitted to the hospital for further evaluation and diagnostic tests.

Previous medical history included measles, mumps, rubella and chicken pox in childhood, and hepatitis B at the age of 10 years. A hemorrhoidectomy was the only previous surgical procedure. She had smoked a pack of cigarettes daily for five years. Multiple sclerosis had been diagnosed in two individuals related to the patient by marriage.

She was afebrile. The pulse rate was 78 beats per minute, and the blood pressure 120/84 mm Hg. In general she was a euphoric, well-developed, well-nourished white woman. Physical findings were normal except for the neurological examination. The optic discs and visual acuity were normal. There was bilateral weakness of abduction of both eyes, the left greater than the right, but no nystagmus was present. There was decreased sensation to light touch and pin prick on the right side of the face. The remainder of the cranial nerve examination was normal. A mild right hemiparesis, arm greater than leg, and a right hemisensory loss to pain, touch and vibration were present. Testing of gait and cerebellar function revealed only the effect of the right hemiparesis. Deep tendon reflexes were increased on the right, and there was a right Babinski sign.

The complete blood count and the SMA 12 were normal. The erythrocyte sedimentation rate was 2 mm/hr, and the serum protein electrophoresis was normal. FANA was positive in a 1 to 40 titer with a speckled pattern, but a test for anti-DNA was negative. A cranial computerized tomographic scan, with and without contrast enhancement, were normal.

Latency for visual evoked potentials (normal 89-119 msec) were 109 msec on the right and 115 msec on the left. Somatosensory evoked potentials following median or peroneal nerve stimulation were abnormal, suggesting a lesion between the nuclei gracilis and cuneatus and the thalamus. A lumbar puncture yielded cerebrospinal fluid containing two erythrocytes and two leukocytes per cubic millimeter. The protein content was 23 mg/dl of which 1.7 mg (7.4%) was IgG. The test for myelin basic protein immunoreactive material was negative. The clinical and laboratory findings were interpreted as consistent with the diagnosis of multiple sclerosis.

JOHN N. WHITAKER, M.D.
(Professor and Chairman of Neurology)

The Clinical Picture

This patient shows the characteristic clinical picture of multiple sclerosis¹ as follows: (1) The onset is typically between the ages of 20 and 40 years with the peak at age 31. (2) The neurologic symptoms and signs are restricted to the central nervous system (CNS) and include, in order of onset, paresis, sensory changes, incoordination, and visual abnormalities; the peripheral nervous system is not involved. (3) The diagnosis is a clinical one, made on the basis of multiple anatomic sites affected at different times. (4) The course is one of progression, usually punctuated with exacerbations and remissions. The most common clinical pattern consists of a series of remissions and exacerbations in the first five years, followed by a steadily progressive course thereafter. The duration of life is approximately 75% to 85% of the duration of normal age-matched controls. It may be even longer now, with better antibiotic treatment of those with respiratory and urinary tract infections, but the disability is progressive, and after 15 years of the disease most patients are disabled or have to change their occupation or lifestyle. These numbers obscure the fact that some patients with multiple sclerosis (MS) do quite well for long periods, and approximately 10% to 15% of cases can be described as having a benign course.

Pathology

The lesion in MS is primary demyelination within the CNS.² The demyelination is referred to as primary because the nerve fibers are relatively well preserved, the major target in the disease process being the myelin unit in the CNS, which consists of the myelin sheath and the oligodendrocyte. The oligodendrocyte sends out its processes to supply the internodal myelin, i.e.,

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Presented Dec. 8, 1982.

the myelin needed from one node of Ranvier to the next. It is a very active cell; in the optic nerve it is estimated that one oligodendrocyte provides the myelin for 40 different internodes.

Damage to myelin of the CNS is evident histopathologically on sections stained for myelin. The sheath is randomly absent or reduced in multiple areas, but neurons and their fibers persist. In the areas of myelin loss, another glial cell, the astrocyte, proliferates to produce "scar tissue" or sclerosis. It is the multiplicity of these lesions and their firm sclerotic character that gave rise to the term multiple (also designated as disseminated in the United Kingdom) sclerosis.

The other pathologic component of the disease is inflammation, found during active phases and manifested not only by perivascular mononuclear cell infiltration, typically around venules, but also by inflammation in the parenchyma of the brain.

The sequence of tissue injury is unknown. Theories exist for both a viral and autoimmune cause, alone or in combination, but neither postulated causative factor has been proven. After a bout of inflammatory demyelination in man, in contrast to what occurs in many laboratory animals, there is only limited remyelination. There are also cerebral infiltrates of active immunocompetent plasma cells, so that the brain, in essence, comes to contain functioning lymphoid tissue.

Pathologic Physiology

The signs and symptoms that these patients demonstrate can be explained as resulting from loss of the myelinated fibers.³ In an unmyelinated nerve fiber the entire axolemma must be depolarized as the current moves down the axon. In the myelinated nerve fiber the high resistance-low capacitance myelin sheath in the internodal area prevents the outward leakage of current, so that the impulse may be conducted in a saltatory fashion from one node of Ranvier to the next, permitting rapid conduction. In the area that has been demyelinated, this insulating function is lost, so that there is outward leakage of current that gives rise to either conduction delay or, if severe enough, to conduction block.

Individuals with MS frequently report that they are heat intolerant. Their neurologic symptoms and deficits often become worse when they are febrile, when the ambient temperature in a room or swimming pool is high, or when they are exhausted. In these situations conduction delays are

increased or converted to conduction blocks.

Partially demyelinated nerves are also irritable, and can serve as a source for ectopic impulse generation, producing such symptoms as tonic spasms and seizures. It is also possible for excitation of one partially demyelinated fiber to be conducted to another partially demyelinated nerve fiber, so called cross-talk or ephaptic conduction, to generate symptoms such as unusual spontaneous sensations.

Diagnosis

Although the diagnosis of MS rests primarily on its clinical features, there are adjunctive diagnostic tests that may be utilized.⁴ These consist of measurements of evoked potentials, tests on cerebrospinal fluid (CSF), and cranial imaging. None of these tests provides information that is unique to MS.

Evoked Potentials. Tests of evoked potentials consist of exposing the patient to certain sensory stimuli (visual, auditory, or cutaneous) and measuring, with electrodes over the scalp or spine, the wave forms (evoked potentials) developed in response to the stimulation. The goal of these tests is to detect delayed or absent nerve impulse transmission that is not evident on neurological examination. Thus, abnormalities on evoked potentials furnish information about the multiplicity of lesions, but do not imply that the cause is MS. Based on which type or combination of evoked potentials are abnormal, the site of the lesion(s) can be predicted.

Visually evoked responses⁵ can be performed by flashing a bright light into the patient's eyes (flash response) or by showing the patient an alternating pattern of white and black squares (pattern shift) on a television screen. The latency between the visual stimulus and appearance of the evoked potential over the occipital region is measured. Conduction will be delayed and the latency will be increased when demyelination in the optic nerve and visual pathways exists. Abnormalities of visually evoked responses can be found in approximately 40% of MS patients whether or not they have a positive history or ophthalmoscopic findings of optic neuritis. The yield of this test is high, because, as found on postmortem studies of patients dying with MS, nearly 100% have demyelinated plaques in the visual pathways. A similar type of approach is the determination of conduction in the auditory system (brainstem auditory evoked response) in the 10 msec after auditory clicks.

Somatosensory evoked potentials consist of stimulating the skin of the arm or the leg and measuring conduction along the sensory pathways. The patient described above had a latency of the visual evoked response at the upper limits of normal, but the somatosensory evoked potentials provided evidence for a delay in conduction in the brainstem.

Cerebrospinal Fluid Measurements. Tests on the CSF are for a quantitative increase of IgG, or for a qualitative abnormality of electrophoretically distinct bands (oligoclonal bands) of IgG or of free immunoglobulin light chains.⁶ The patient today did not have increased IgG and testing for oligoclonal bands was not performed. Ordinarily, 90% or more of the immunoglobulin in CSF is IgG, and it appears as a diffuse band on electrophoresis. When oligoclonal bands occur within the immunoglobulin area, they are discrete and multiple. They are found in 80% to 90% of persons with MS, even when the level of CSF IgG is normal, but they may also be seen in other disorders such as neurosyphilis and subacute sclerosing panencephalitis. Oligoclonal bands are more commonly found after MS has been clinically apparent for several years, and do not change with disease activity.

Tests on CSF may also be clinically useful for determining activity of the disease by measuring the level of a released myelin component, myelin basic protein.⁷ Following recent damage to myelin in the CNS, myelin basic protein or its peptides appear in CSF for seven to ten days. The detection of this protein or its peptides in CSF is not diagnostic for MS, and patients whose disease is inactive or insidiously progressive are expected to have normal or negative levels.

Cranial Imaging. Cranial computed tomography without contrast enhancement, even during periods of clinical exacerbations, furnish little positive information for the diagnosis of MS but may be useful in excluding other possible causes of the patient's neurological problem. These scans may show some ventricular enlargement or cerebral atrophy and sometimes small areas of radiolucency in the periventricular region or in the parenchyma. If the patient is experiencing a clinical exacerbation it may be possible to show contrast-enhancing lesions, particularly when large amounts of contrast material are injected.⁸ In some patients there is evidence of enhancement when there is no related clinical symptomatology. It is this type of finding as well as the subclinical lesions detected on testing with evoked po-

tentials that indicates that subclinical involvement frequently occurs in this disease. Cranial imaging by nuclear magnetic resonance should afford a better means for determining the number and sites of lesions in MS. A great deal goes on in the CNS of the patient with MS that the physician or the patient are never aware of clinically, and, if the clinical history and findings are compared with postmortem changes,⁹ it is evident that many lesions never manifest themselves clinically or by presently available laboratory tests.

Observations on Causes and Pathogenesis

There is an enormous amount of information at hand on the possible causes and pathogenesis of MS, and a lot of it is inconsistent and controversial. Both environmental and host factors, probably in combination, play a role in the development of the disease.¹⁰

Environment. There is a striking environmental component to MS, usually interpreted to reflect an infectious agent, but other environmental factors, such as exposure to a toxin or perhaps nutritional deficiency, haven't been eliminated. The distribution of the disease is very uneven, with areas of high prevalence (30 to 80 cases per 100,000) in northern Europe, in the northern portion of the United States, in Canada, and in southern Australia and New Zealand. Other areas, particularly nearer the equator, have prevalence rates of approximately 10 to 30 per 100,000 or even less than 5 per 100,000. There are certain localities which, even though they have the same approximate latitude of a high prevalence area, have a low prevalence of MS. One such area is in Japan, where the incidence is about 5% of what is expected. There are also certain places where the prevalence of MS is extremely high. The Shetland and the Orkney Islands, which lie to the north of Scotland, have the highest prevalence of MS (up to 300 cases per 100,000) in the world. So far the explanation for this high prevalence is unknown.

The uneven distribution of MS has permitted a number of studies to be conducted on environmental influences. These studies have been based on population migrations such as occurred to Israel at the time of statehood in the late 1940s, to South Africa, and to movement of persons in the United States prior to entry into military service. These studies indicate that the environmental influence occurs prior to the age of 15 years. For example, if someone from the northern states of the United States moves south before the age of

15, he has a decreased likelihood of developing MS, but if he moves after age 15, he retains the chances of acquiring the disease characteristic of the region in which he previously lived.

In most areas studied, the incidence (number of cases per time period) of MS has not changed over decades. In the Faroe Islands, however, lying in the North Atlantic between Iceland and Norway, there is convincing evidence of an epidemic of MS. Complete health records have been kept on the Faroe Islands since the 1920s; there were no recorded cases of MS between 1923 and 1943. From 1943 to 1960 there were 24 cases of MS. British troops occupied the Faroe Islands between 1939 and 1945. Encampment sites of the British soldiers and the homes of the patients who developed MS were very close. The urgent and unanswered question is what the native Faroese acquired from the British troops stationed there for military defense measures in World War II. A similar type of epidemic, although not quite as well defined, occurred in Iceland when Canadian and British troops were there during the same period. One possibility is that the troops brought an infectious agent with them, and considerable investigation of these two "epidemics" is in progress.

It has been postulated that dogs may have provided a vector for an infectious agent for MS in these areas or elsewhere. This speculation has been debated heatedly, and has created much concern among dog owners. There are good reasons to keep dogs adequately immunized against canine distemper, but at the present time there is no convincing evidence to indicate that there is a causative relationship between dogs or common canine viruses and MS.

To summarize the epidemiologic features of MS, the prevalence in different geographic areas varies from 0 to over 100 per 100,000 population. There is a latitudinal factor, apparent foci of epidemics, a racial factor (in the United States the disease is twice as common in whites as in blacks), and a gender factor (more common among women). There seems to be exposure to something early in life, prior to the age of 15 years. There is no evidence of conjugality as a source, nor is there any apparent increase among family members who are not blood related.

The Host. There is a 12- to 20-fold increase of MS among primary relatives of individuals with MS. Studies of the possible relationship of HLA types and MS have revealed interesting results. Among the class I genetic products of the major

histocompatibility complex on human chromosome 6, HLA A3 and B7 are both increased about twofold among patients with MS. For the class II products at the D locus, DR2 is increased about fourfold. Since the D region of the major histocompatibility complex of the human appears to be related to control of the immune response, the HLA relationship is highly suggestive of a possible immunogenetic factor in MS. There may be other as yet untested gene products related to the major histocompatibility complex that relate more closely to MS.

If racial and ethnic groups other than Caucasians are studied, there are HLA disturbances similar in frequency, but they are not the same ones. This again suggests that there is something else involved besides the HLA types. The real concern here is that the HLA type within a family does not determine the appearance of MS, hence it cannot be used as a predictor. Even in monozygotic twins there is a discordance for the disease. These findings indicate the existence of other genetic influences or the additive effect of environmental factors.

The relationship to the D locus makes it necessary to recall that the D genetic products are typically found on immunocompetent cells—macrophage, B cells, activated T cells. Much attention has been given to the possible immunogenic basis of this disease. Lymphocytes constitute a very heterogeneous population of cells. The larger categories are B lymphocytes (approximately 15% of peripheral blood lymphocytes) and T lymphocytes (approximately 65% of peripheral blood lymphocytes). B lymphocytes and T lymphocytes are directly involved in humoral and cellular immunity respectively. Subsets of T lymphocytes may also exert an immunoregulatory influence to help or suppress an immune response. The general immune status and related conventional laboratory measurements of blood in patients with MS have revealed no abnormalities. However, the T lymphocyte subsets with immunoregulatory functions may be affected.¹¹ During periods of pathologic activity of MS there is a decrease in suppressor activity in the peripheral blood, as compared to patients who are clinically stable or to normal controls. Furthermore, during periods of recovery this suppression is accentuated, so that there appears to be an oscillation from decreased suppression to excessive suppression with activity and quiescence. When the number of subsets of lymphocytes in peripheral blood are quantitated with monoclonal anti-

bodies, there is frequently, but not always, a decline in the number of subsets having a suppressor function during periods of disease activity. It currently is unknown how an immunoregulatory abnormality of defective suppression brings about primary demyelination in the CNS.

There is activity within the CNS suggestive of a hyperimmune response that might arise from diminished suppression.¹² As already mentioned, there is frequently an elevation of CSF IgG in MS. Approximately 70% of patients have an increased IgG and about 50% an increase in IgM. Much of the increased level of IgG in the CSF has its origin from lymphoid cells in neural tissue. Immunofluorescence of brain sections from a patient with MS usually shows a huge number of IgG-bearing cells. It is estimated that there are up to 10^8 plasma cells deposited within the CNS in MS. Even assuming that there is an alteration in permeability of the blood-brain barrier, some patients are estimated to produce up to 100 mg of IgG per day within their CNS.

The infiltrating plasma cells in plaques are involved in the production of the electrophoretically distinct oligoclonal bands. Although in any one patient the oligoclonal band pattern of the CSF changes little, this pattern of immunoglobulin among the different plaques found postmortem in the brain is different, suggesting that there are different clones of cells in individual plaques that have been stimulated differently. Most of this increased amount of IgG is of unknown specificity, i.e., what has stimulated its production or against what it is directed is unknown. It has been suggested that it represents a "nonsense antibody" resulting from defective immunoregulation in the host. It is also possible that the antibody is directed against an infectious agent or a brain antigen that has not yet been tested. It is pertinent that in subacute sclerosing panencephalitis, neurosyphilis, and mumps meningitis the oligoclonal bands contain antibody against the causative infectious agent. There may yet be such an agent or antigen against which these bands in MS are directed. Small amounts of oligoclonal bands can also be found in the serum. Their source is unknown, but their existence raises the question of whether or not there is an important systemic immune response in the patient with MS.

As far as viruses are concerned, there have been many types suggested as the possible cause of MS.¹³ At present there is no convincing evidence of an infectious agent, particularly a virus or viral component, within the brain.

The Tissue Targets

Central nervous system myelin has an unusual composition in that it contains more lipid and less protein than the usual membrane.¹⁴ One of these proteins, myelin basic protein, has been of interest to investigators because it will induce in laboratory animals a disease called acute experimental allergic encephalomyelitis. Animals displaying this reaction develop parenchymatous, perivascular, and meningeal infiltration of mononuclear cells with some similarity to the histopathologic alterations seen in a fresh plaque of MS. A chronic, recurrent experimental allergic encephalomyelitis can be induced by selecting the age and type of animal and the composition of the inoculum.

Myelin basic protein has a molecular weight of 18,500 and contains 169 amino acids. It comprises 30% of the myelin protein in the CNS. At the time of an acute exacerbation of MS, myelin basic protein or a peptide thereof appears in the CSF.⁷ A summary of the useful facts accompanying the finding of this material in CSF is as follows: (1) It is an index of damage to myelin in the CNS and the best laboratory test that is available for it. (2) The amount of this material is related to the volume of myelin damage and sampling of CSF. It is typically found within the first two weeks, mostly within the first week, of an exacerbation of MS except when there is a small but highly obvious clinical lesion, e.g., one causing an internuclear ophthalmoplegia. (3) It is not disease specific, and can be found in other diseases affecting the white matter of the CNS. (4) Its presence or concentration is not related to the level of CSF protein or IgG. (5) Antigenically this material seems to be a peptide from the molecule of 169 residues, encompassing or overlapping with part of residues 43 through 88. (6) There may be a coexistent antibody to myelin basic protein in the CSF, probably in the form of immune complexes, that may influence the measurement of myelin basic protein. (7) Based on animal work, it is likely that this material is subsequently cleared and degraded by the kidney and released into the urine.

Management

Therapy is available for treating the symptoms and complications of MS. The appropriate use of antibiotics has extended the life expectancy of many patients by controlling urinary tract infections. When urinary tract difficulties occur, uro-

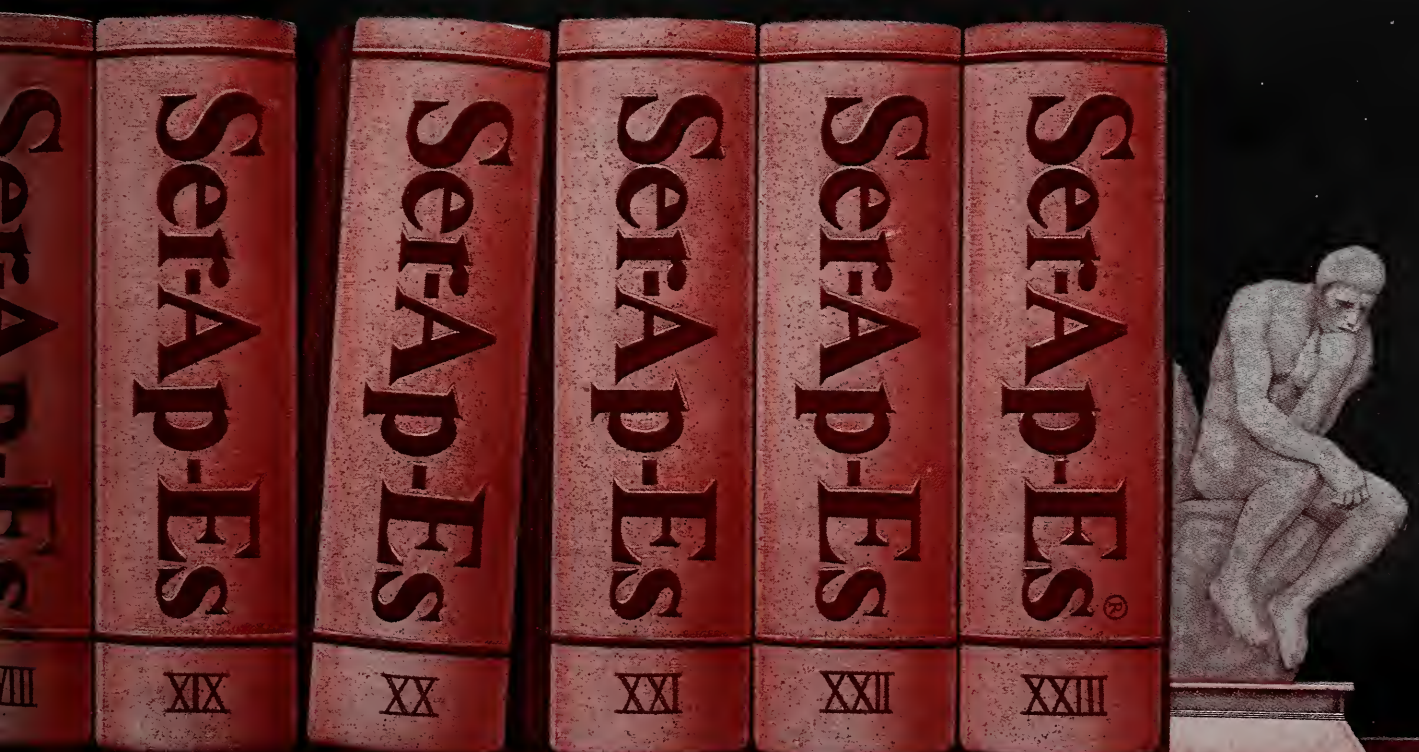
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dynamic testing followed by the use of certain drugs or intermittent self-catheterization may be useful. Control of flexor spasms and muscle hypertonicity may often be achieved with baclofen and diazepam. For paroxysmal attacks of pain, seizures and toxic spasms, anticonvulsants may be effective. For selected types of tremor, cryo-ophthalmotomy, the surgical procedure popularized many years ago for Parkinson's disease, may be indicated. Physical therapy can be very helpful to the patient.

For restoration of function, three general goals may be considered. One is to limit demyelination, the second is to increase remyelination, and the third is to attempt to make demyelinated fibers conduct better. Most of the information available on these aspects of therapy is on efforts to limit demyelination by interfering with the immune system. ACTH has been reported to enhance the speed but not the extent of recovery from an exacerbation.¹⁵ Further, the combination of cyclophosphamide and ACTH has been described as retarding the rate of rapidly progressive cases.¹⁶ All therapeutic claims to alter the natural history of MS still await confirmation.¹⁷

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FEBRUARY, 1984

editorials

Late-Breaking Non-News

It is coming up Valentine's Day as you read this, but for me as I write, the days of 1983 are just dwindling down to a precious few—say four. Such are the exigencies of editorship, with its deadlines and lead times.

It has been interesting, if not always edifying,

to watch the weatherman's maneuverings over the past week or so, as they have frequently been an exercise in futility. The severity of the weather, of course, has been extreme the country over—and weird, too. The other day it was warmer in Anchorage, Alaska than in Tampa, Florida. While weather predictions have been relatively accurate over the long term for the broad picture, the weatherman hasn't done so well locally. Last night I struggled home over a sheet of ice in a freezing drizzle, which contrary to predictions turned during the night not into snow but into a warm (relatively) rain, so that I came to work this morning on streets that were wet but washed clear of the glaze. Over Christmas, with temperatures well below zero, snow was in and out of the forecast so often I lost count. We got only a light dusting, but two inches are forecast for tonight. We'll see.

Meteorology has come a long way, what with weather balloons, sensitive instruments, and so on, but it is still at the mercy of late-breaking jet streams that refuse to give up their secret, and shifty ocean currents, such as El Niño, which caused so much havoc last year; those currents are equally independent, not to say contrary. For all his sophisticated instrumentation, then, the weatherman—or meteorologist, as he has now become (the maintenance man is now the plant engineer, and so on)—has only a slight edge over the woolly bears or my grandmother's corns.

Last night's *Nashville Banner*, and I guess newspapers the country over, contained a prominently displayed half-page spread by the self-styled seer Jean Dixon, detailing the fortunes and/or misfortunes of world leaders over the coming year. Mrs. Dixon, a sharp student of world affairs, uses only sharp wits and a sharp pencil, but she has the soul of a snake-oil salesman. A quick perusal of her predictions would soon convince any observer of history that fulfillment of some of her predictions is inevitable, and some are even self-fulfilling, as they are based on such things, for example, as Egypt's unstable military situation, shaky world economy, and the activities of world terrorism. Mrs. Dixon has collected quite a following as prophecies (which, incidentally, are never too specific) become, at least in their eyes, fulfilled. She differs from the ordinary world observer only in her effrontery and her captivation of the media hucksters.

It would indeed be nice to be able to predict the weather accurately. It would be even nicer to be able to influence it. In fact, it would be nice

to be able to predict, as Mrs Dixon allows she can, and influence a lot of things. What we really want, of course, is to have it both ways—*our* ways. As someone, maybe Will Rogers, expressed the problem, everybody talks about the weather, but nobody ever does anything about it [even though we try].

Only God knows the future, and he ain't tellin'. Though Mrs. Dixon claims to receive her insights through prayer, she needs to be sure about who it is that is heeding her prayers, since there are many specific scriptural injunctions against both soothsaying (which includes horoscopes), and curiosity about the future. God's view as expressed in Holy Scripture is that the future is His business, that it is under His control, and that those who are His children must not worry about it. Those who are not had better, but anything they find out by prying will likely be to their discomfiture, and possibly their detriment as well, since instead of God revealing the future it is more than likely the devil revealing his intentions.

As my mother used to say, eavesdroppers never hear anything good about themselves.

J.B.T.

Sleeping Double in a Single Bed

The *Wall Street Journal* carried an article the other day about "disinformation" tactics being used by the Soviet Union, originating with the KGB, by which false stories damaging to the United States are circulated to the foreign press. Some are so clumsily done that they are immediately spotted as fraudulent, but others are so carefully constructed and seasoned with enough truth that they seem plausible, and so are often picked up by the foreign press, sometimes leading to violent anti-U.S. activity. According to a recently defected KGB major who is helping head up the anti-disinformation program in Washington, the KGB has been fostering such activities since the early 1920s, when many emigrating anti-Bolshevik Russians were lured back to Russia with tales of a spurious anti-Soviet organization, only to be promptly shot.

It is obviously difficult to combat such tactics.

Sources have to be carefully checked and their contributions verified. This is an expense in both time and money the media are not always willing to bear. It is easier to wait for the reaction and allow the abused party to refute the story, although one such that appeared in the Pakistani press resulted in riots and the destruction of five U.S. installations when it was reported that the U.S. was involved in a plot to blow up the mosque in Mecca.

One must wonder how many such falsehoods have found their way into our history books. Certainly this idea did not originate solely with the Bolshevik revolution. It is even fomented in the best of U.S. journalistic circles as "creative journalism." This is one of the reasons history is constantly being reassessed, and sometimes rewritten. Rewriting history must therefore necessarily be as old as history itself, as new evidence emerges to enlarge the retrospective or refute disinformation. In addition, contemporary writers seldom grasp all, or sometimes even very many, of the implications of events in their own era; those must be judged in light of subsequent consequences, particularly where there has been controversy.

Delving into the past is fraught with hazard, as the message frequently becomes garbled with repetition, and original sources may be gone long since. Even if they are available they may have been so subject to bias that the episodes they recount can scarcely be verified. One can never be certain whether he is reading factual information or misinformation. Such are the vicissitudes of the historic record for serious historians. What the public gets, therefore, and what consequently passes for history in the public view, may or may not be.

Besides these accidental roadblocks, various degrees of embroidery are being increasingly performed on the record as "investigative reporting" just to make it read better, and serious departures are often deliberately made by writers of the so-called historical novel, which readers often take for history, sometimes even despite disclaimers, just so everything will come out right for the protagonist. Since a brilliant canvas is more arresting than a pastel study, in such accounts sleazy villains and robust heroes replace us more ordinary mortals, often resulting in a lurid burlesque of the unadorned, and therefore frequently pedestrian, factual record. That sticks in the memory, the facts forgotten. Cases in point:

Visiting in Tahiti after World War I, Charles

Nordhoff and James Norman Hall became enchanted by the story of the mutiny on *HMS Bounty*, a small British naval vessel sent to Tahiti a few years after it was discovered by Capt. James Cook to fetch a load of breadfruit trees for transplantation on some of the British-owned tropical islands. Now the account of a mutiny makes pretty sordid reading unless you can turn the case of the mutineers into a *cause célèbre*. The name and character of an able, conscientious officer was in that instance unconscionably besmirched simply to give the mutineers more or less just cause for their criminal act of mutiny and the subsequent casting adrift of the captain and the non-mutinous members of the ship's company in an open boat more than a thousand miles from any land, with only a compass and very little food and water.

The *Bounty's* captain, Lt. William Bligh, RN, had first visited Tahiti with Capt. James Cook, one of the most beloved and illustrious officers in British naval history. It was because of Cook's high regard for him that Bligh was chosen to lead this expedition. After his remarkable, not to say unique, exploit in returning himself and all hands to safety, Bligh served the British navy with distinction, rising to flag rank. Like Cook before him, he had risen above his humble origin, but unlike Cook he is now remembered as the epitome of naval villainy for no better reason than to make a good story, despite the contrary evidence given by his loyal officers and seamen. The mutineers, remembered as heroes, were weak men who could not withstand the rigors of the long, arduous voyage, and Fletcher Christian was their jealous, obstreperous champion.

Having read Nordhoff and Hall's trilogy while I was in high school and having subsequently seen the film based on the books, I became interested enough to pursue the matter in other accounts, where I learned the facts of the case. They are presently preserved in a replica of the *Bounty* that lies docked in St. Petersburg, Fla. Though the novels were the basis for the travesty, it was the film that did the damage. *Mutiny on the Bounty*, released in the mid-1930s, was one of the most impressively arresting films of those early days of sound cinema (which was less than ten years old at the time). The fine acting of Charles Laughton, who could have made a villain of Santa Claus, painted a persuasive picture of Bligh as the brutal tyrant, and no more dashing a Fletcher Christian could have been found than Clark Gable. All sympathies were necessarily with the

mutineers; history (and legality) be damned! That film remains one of the most compelling ever made, beside which the later version (in color) pales, with the more sympathetic Bligh of Trevor Howard and the singularly unappealing Fletcher Christian of Marlon Brando.

In 1909, Commander Robert E. Peary, USN, became the first man ever to set foot at the North Pole, so the history books tell us. That his achievement was challenged is little known—or was until the other night, when CBS aired a fine made-for-TV movie entitled *Cook and Peary: The Race for the Pole*, an account of the adventures of Frederick Cook, M.D., who claimed to have preceded Peary to the Pole, and to have been cheated of his rewards, and even destroyed, by Peary and his backers.

The writers' and filmmakers' sympathies were clearly with Cook, from casting on down. Peary is portrayed as an egotistical, tyrannical, unfair megalomaniac who was more than a little dishonest. The National Geographic Society engages in shameful duplicity, and the naval Board of Inquiry is bumbling and its activity a charade. I came away believing that Peary was a blackguard who had robbed Cook and deceived the public to gain his own despicable ends. That was my first—and not, considering the circumstances, unnatural—reaction. It was the reaction the film's makers intended.

After feeling for some moments that something had to be wrong here, I suddenly gained some insight into the feelings of the just deflowered lady on awakening with a hangover in a single bed with a man only dimly remembered. That a controversy as to the Pole's discoverer exists is unquestionable, and that it is unresolvable on a factual basis must be equally clear. That so much duplicity as the film depicts could have combined to lead to the conclusion accepted by the Congress of the United States in making the awards to Peary seems unlikely. To suggest that they did is not necessarily unreasonable, as such a suggestion is not new. To woo us, though, with the hearts and flowers of an attractive physician and his gorgeous, long-suffering wife being fleeced by a group (a *large* group) of scheming bounders is a little much. The film's makers have seduced the public as only television (or the movies) can. It is doubtful the public will ever consider that, and so the accomplishments of Peary will forevermore remain suspect. Perhaps they should, but only after a fair fight. This one was not.

Adam and Eve recognized that the Archangel

Michael with his drawn sword had put an end to their enjoyment of their peaceful garden. They did not have the wit to foresee that a bite of one little apple would be the cause of all their grief. That is the way the media do us. Anyone can recognize sex and violence, and no one need watch if it offends him. Anyone can decide whether or not it is good for children, and in fact the media will often be so good as to tell you if it is not.

The danger from the media is not in sex and violence. The danger is in the blandishments that seduce the viewer to accept fiction, or more usually half-truth, as fact. Sir William Osler remarked to an entering medical class that half of what he would tell them would subsequently be proved false. The difficulty, he said, was that he did not know which half. It is just so with today's news—and tomorrow's. Since the media will not tell us what is fact and what is fiction, we need to keep our wits about us. We are at their mercy, and we should not count on its tenderness. Unfortunately, disinformation is not the exclusive property of the KGB.

J.B.T.

ard of care as a child without that handicap. To help protect handicapped infants from such discrimination/child abuse, a method of alerting protective agencies is provided for in the regulations just as many states now provide for alerting protective agencies on the suspicion of abuse of a non-handicapped child. Any student of recent medical ethical history must certainly be aware that such regulations are necessary. One need only compare the papers of Duff and Campbell (*N Engl J Med* 289:890), Shaw (*N Engl J Med* 289:885), and Kerenyi and Chitkara (*N Engl J Med* 304:1525) to Leo Alexander's "Medical Science Under Dictatorship" (*N Engl J Med* 241:39) to find that in our own time Dr. Alexander's terrible prophecy has been fulfilled.

The American people, I am confident, do not seek Lethal Medicine from our profession. If the AMA, ACOG, and the AAP continue to foster such lethal medicine, i.e., the starvation to death of handicapped children, I believe it is they who will be rejected by our society rather than the Hippocratic traditions upon which medicine has flourished in Western civilization.

Robert P. N. Shearin, M.D., FACS, FCCP
6005 Park Ave., Suite 602
Memphis, TN 38119



William Frederick Orr, age 74. Died November 28, 1983. Graduate of Vanderbilt University School of Medicine. Member of Maury County Medical Society.

Louis Alexander Killeffer, age 76. Died December 6, 1983. Graduate of University of Tennessee College of Medicine. Member of Roane-Anderson County Medical Society.

Lester Howard Shields, age 75. Died December 1, 1983. Graduate of University of Tennessee College of Medicine. Member of McMinn County Medical Society.

Richard David Taylor, age 69. Died December 1, 1983. Graduate of University of Tennessee College of Medicine. Member of Northwest Tennessee Academy of Medicine.

Robert Todd Terry, age 78. Died December 4, 1983. Graduate of Washington University Medical School, St. Louis. Member of Nashville Academy of Medicine.

James B. Witherington, age 68. Died November 28, 1983. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.



Baby Doe

To the Editor:

I noted in your November 1983 issue (*J Tenn Med Assoc* 76:755), National News from the AMA's Washington office, dealing with comments received by the Department of Health and Human Services on the "Baby Doe" regulations. Having been one of those who wrote to the Department of HHS in favor of the Baby Doe regulations, I am confident that most of the comments received by the government, which are yet being tallied, will favor those regulations.

As you should know, but as is seldom reported, the regulations do not require that dying infants be kept alive by heroic measures. The regulations merely provide that a handicapped infant receive the same stand-

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BRADLEY COUNTY MEDICAL SOCIETY

Donald Lynn Hamby, M.D., Cleveland

GREENE COUNTY MEDICAL SOCIETY

Henry L. DeWitt, M.D., Greeneville

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

John L. Chapman, M.D., Kingsport

David Roy Ginn, M.D., Kingsport

David P. Russell, M.D., Bristol

WASHINGTON-UNICOI COUNTY MEDICAL ASSOCIATION

George A. Youngberg, M.D., Johnson City

personal news

Benjamin F. Byrd, Jr., M.D., was named president-elect of the Nashville Area Chamber of Commerce.

Morris Ray, M.D., Memphis, has been chosen president-elect of the medical staff of Baptist Memorial Hospital. *David Holloway, M.D.* was elected secretary, and *Lee W. Milford, M.D.,* is the president for 1984.

Lenor de Sa Ribeiro, M.D., medical director of Bordeaux Hospital in Nashville, has been named a Fellow of the American College of Hospital Administrators.

James A. Romberger, Jr., M.D., Harriman, has been elected to Fellowship in the American Academy of Pediatrics.

TMA Members Receive AMA Physician's Recognition Award

Twenty-one TMA members qualified for the AMA Physician's Recognition Award during November 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

John H. Burkhardt, M.D., Knoxville
Rocco A. Calandruccio, M.D., Memphis
Chester N. Caster, M.D., Coalfield
Fenwick W. Chappell, M.D., Memphis
John W. Ellis, M.D., Trenton
William E. Feist, M.D., Chattanooga
Joanne V. Filchok, M.D., Knoxville
Radwan F. Haykal, M.D., Memphis
James F. Hudgens, Jr., M.D., Knoxville
Charles C. Hudson, M.D., Columbia
Vernon Hutton, Jr., M.D., Nashville
Glenn E. Jennings, M.D., Gatlinburg
Hytham A. Kadrie, M.D., Chattanooga
Cecil H. Kimball, M.D., Cleveland
Joseph C. Lougheed, M.D., Memphis
James J. Madden, Jr., M.D., Nashville
Benjamin A. Moeller, Jr., M.D., Memphis
P. E. Orpet, Jr., M.D., Memphis
John L. Sonner, M.D., Sevierville
Robert E. Walter, M.D., Elizabethton
Herbert P. Whittle, M.D., Charleston

announcements

CALENDAR OF MEETINGS

NATIONAL

- | | |
|------------------|---|
| March 3-7 | American Academy of Allergy and Immunology—Palmer House, Chicago |
| March 3-8 | American Society of Clinical Pathologists—Las Vegas Hilton |
| March 4-9 | Mammoth Mountain Emergency Medicine Ski Conference (sponsored by Medical Conferences, Inc.)—Mammoth Lakes, Calif. |
| March 8-11 | American Psychosomatic Society—Hyatt on Hilton Head Island, Palmetto Dunes, S.C. |
| March 11-15 | Society of Toxicology—Atlanta Hilton |
| March 12-16 | International Academy of Pathology, United States-Canadian Division—San Francisco Hilton |
| March 14-16 | American Society for Clinical Pharmacology and Therapeutics—Atlanta |
| March 14-18 | American Medical Student Association—Hyatt Regency, Crystal City, Washington, D.C. |
| March 15-17 | Advances & Improvements in Hernia Surgery (sponsored by South Miami Hosp.)—Doral Beach Hotel, Miami Beach |
| March 18-22 | American Radium Society—Hotel del Coronado, San Diego |
| March 25-28 | Society of Air Force Physicians—Antlers Hotel, Colorado Springs |
| March 25-29 | American College of Cardiology—Dallas |
| March 29-April 1 | National Symposium on Hair Replacement Surgery (sponsored by Amer. Acad. of Facial Plastic and Reconstructive Surgery)—Palm Springs, Calif. |
| March 30-April 4 | American Society of Abdominal Surgery—Marriott, New Orleans |

April 1-5 American Association of Pathologists—Radisson Hotel, St. Louis

April 1-6 American Physiological Society—St. Louis

April 2-3 Nutrition, Eating and Behavior Conference (sponsored by Georgia State Univ.)—Atlanta

April 2-4 Genetics & the Law Conference (sponsored by Amer. Society of Law and Medicine)—Westin Hotel, Boston

April 4 Association for the Care of Asthma—Hyatt Regency Embarcadero Center, San Francisco

April 6-8 Orthopedic Symposium on the Cervical Spine (sponsored by St. Luke's Episcopal Hosp. and Baylor College of Med.)—Westin Galleria Hotel, Houston

April 6-8 Society of Pediatric Radiology—Convention Center, Las Vegas

April 7-13 Navy Occupational and Environmental Health Workshop—Pavilion Tower Hotel, Virginia Beach, Va.

April 8-11 American College of Emergency Physicians Winter Symposium—Scottsdale, Ariz.

April 8-14 American Academy of Neurology—Sheraton Hotel, Boston

April 8-12 American Association of Neurological Surgeons—San Francisco Hilton

April 9-13 American Roentgen Ray Society—Hilton Hotel, Las Vegas

April 11-14 American Burn Association—San Francisco Hyatt

April 11-14 Association for Surgical Education—Hilton Head Inn, S.C.

April 25-28 American College Health Association—Hyatt Regency Peachtree Center, Atlanta

April 25-28 Virginia Society of Ophthalmology Annual Meeting—Williamsburg, Va.

April 26-29 American College of Physicians—Atlanta Hilton

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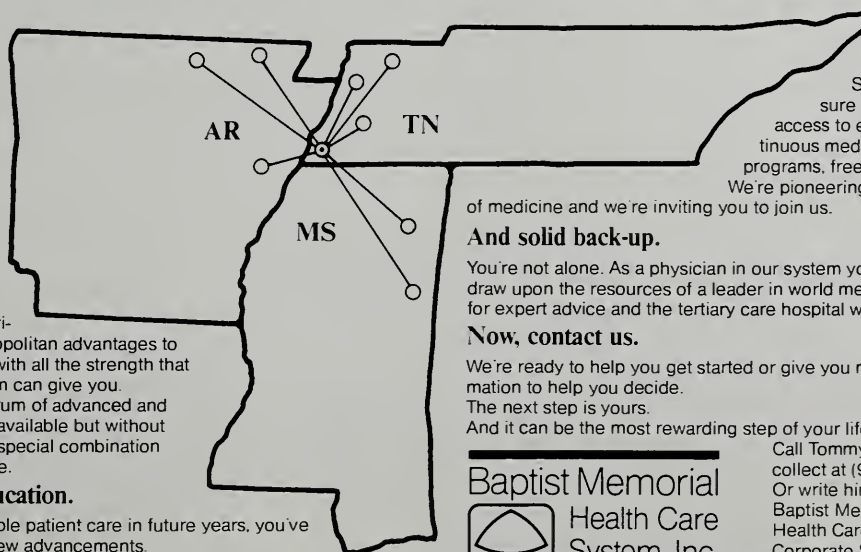
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Nuclear Magnetic Resonance Relaxation Rates of Serum From Lung Cancer Patients: Work in Progress

ROBERT G. STEWART, M.D.; VAL M. RUNGE, M.D.; DEAN E. BRENNER, M.D.;
WILLIAM S. WITT, M.D.; C. LEON PARTAIN, M.D., Ph.D.;
and A. EVERETTE JAMES, JR., Sc.M., J.D., M.D.

Introduction

Nuclear Magnetic Resonance (NMR) spectroscopy has been used extensively by physicists and chemists for some 25 years to study nuclear interactions and molecular bonding. NMR is based upon excitation of paramagnetic nuclei by pulsed radiofrequency fields, with the resultant signal dependent on the magnetic properties of the particular nuclear concentrations.¹ In the past decade, NMR has become an important new method in biomedical research.

In 1971, while using proton NMR in in-vitro studies of animal tissues, Damadian found the spin-lattice or longitudinal relaxation time (T_1) to be longer in cancerous tissues than corresponding normal tissues.² This observation has also been verified for human tissues by numerous investigators.³⁻⁶ Frey et al⁷ demonstrated an increase in the T_1 of non-tumor bearing tissues in animals with malignant neoplasms. Further work by Floyd et al⁸ showed that this "systemic effect" was present in serum as well.

NMR studies of human serum have been prone to several problems. Both Ekstrand et al⁹ and McLachlan¹⁰ could not find a statistically significant difference between serum from cancer patients and controls. Unfortunately, both studies had small, heterogenous patient populations, and they did not employ a clinically relevant control population. The possible effect of prior chemotherapy on T_1 determinations was also not considered. Beall et al¹¹ have recently reported an elevation of the spin-lattice relaxation time in women with breast tumors, and a decrease in the T_1 in women with breast cancers in remission after treatment.

Our study was designed to measure the T_1 value of serum in hospitalized male patients with biopsy proven lung neoplasms and to compare the result with a similar group of men, hospitalized for nonneoplastic conditions. The effect of medical treatment upon serum T_1 and the use of frozen specimens was also studied.

Materials and Methods

All patients in this investigation were men hospitalized with the clinical diagnosis of untreated primary lung carcinoma, or men receiving

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therapy (either chemotherapy or radiation) for a previously diagnosed lung cancer. The presence of neoplastic disease was confirmed by pathologic study of tissue specimens. Controls were obtained from a hospitalized male population with such underlying diseases as tuberculosis, pancreatitis, and acute myocardial infarction.

Ten milliliters of blood were obtained from each patient and placed in a plain evacuated glass container. Within two hours of venapuncture, the containers were centrifuged for 15 minutes, and the samples then placed at room temperature into a JEOL FX-90Q NMR spectrometer operating at 90 MHz. The null method was used to determine the T_1 value.¹² Previous studies have confirmed the accuracy of T_1 measurements obtained with the null method (compared to a semilogarithmic curve fit) under the given experimental conditions.¹³ The effect of freezing was studied by comparing the spin-lattice relaxation time T_1 of a particular sample immediately after centrifugation and then after thawing following storage at -70°C for several weeks.

Results

The spin-lattice relaxation time for the control group was 2.0 sec (± 0.2 sec, $N=12$), while the relaxation time for all cancer patients was 2.1 sec (± 0.2 sec, $N=15$) (Fig. 1). Although there is a trend toward higher relaxation times in cancer patients, the difference was not significant ($P>.05$). Subdividing the cancer patients into treated versus nontreated groups revealed a T_1 for nontreated patients of 2.1 sec (± 0.1 sec, $N=8$), versus a T_1 for treated patients of 2.0 sec (± 0.2 sec, $N=7$). Again, there appeared to be a trend toward longer relaxation times in the nontreated patients, but again the difference was not statistically significant ($P>.05$) (Fig. 2).

No significant difference was found between frozen and unfrozen sera. The T_1 value for both frozen and unfrozen sera was 2.1 sec (± 0.2 sec, $N=8$).

Discussion

This study was performed in an attempt to determine the feasibility of using NMR spin-lattice relaxation rates (specifically T_1) as a screening test for lung neoplasms. Several investigators had previously studied the "systemic effect" in serum, but found no significant differences between control groups and cancer patients.⁹⁻¹¹

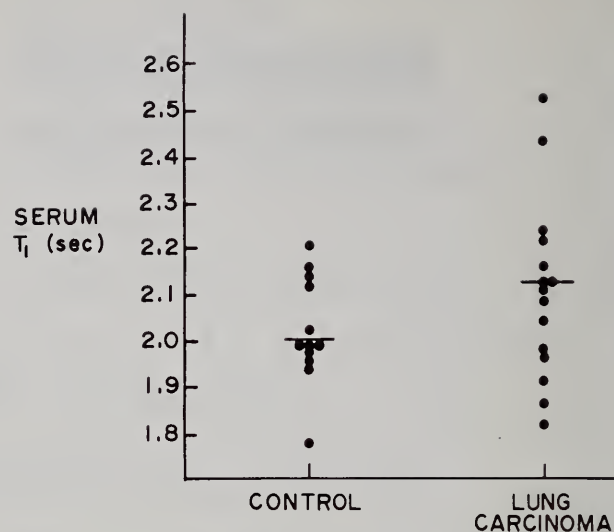


Figure 1. Comparison of serum T_1 values between hospitalized patients (without neoplastic disease) and patients with lung carcinoma.

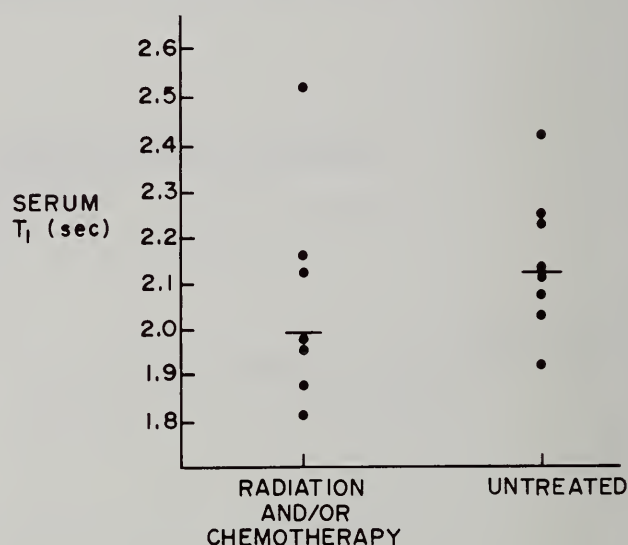


Figure 2. Comparison of serum T_1 values between patients receiving radiation and/or chemotherapy and untreated patients (both populations with primary lung carcinoma).

Studying only patients with a primary lung carcinoma and utilizing a control population of hospitalized patients without neoplastic disease, no significant difference in the T_1 of serum was found. In a larger clinical series, there might be some benefit in subdividing the patient population with respect to histological classification of neoplastic tissue.

Several authors have shown that the spin-lattice relaxation time (T_1) in animal serum varies with the extent of disease.^{8, 14, 15} NMR measurements may prove to be of benefit in individual cases as a simple clinical test for the assessment

of response to therapy. A trend toward decreasing T_1 values was noted in the patient group receiving chemotherapy or radiation. However, there was no statistical difference between this population and the patient population prior to treatment. Larger clinical series with investigation of patients prior to and following treatment are needed to assess the value of serum NMR for evaluating the response of neoplastic disease to therapy.

Storage of sera at -70°C for several weeks had no significant effect upon T_1 in this limited clinical series. The use of this result may greatly simplify processing of serum in future clinical series.

Conclusions

In this limited clinical series, serum T_1 studies did not distinguish patients with lung carcinoma from a control hospital population of patients without neoplastic disease. However, in-vitro NMR study of serum may prove to be an effective screening procedure in other neoplastic conditions.

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High Blood Pressure in Black Populations—Current Perspectives of Incidence, Prevalence and Risk Factors

ADEDAMOLA ONI, M.D.

Introduction

High blood pressure (hypertension) is a major contributor to stroke and heart disease in the black community. The effort here is to examine the disease as it occurs within the black community emphasizing pertinent intraracial differences.

Data from the National Health and Nutrition Examination Survey (1971-72) and several other studies since this survey has shown an increased prevalence of hypertension among samples of the black population.¹⁻³ The following is accepted common knowledge:

- The black community has a proportionately larger share of the burden of high blood pressure than its white counterpart.^{4,5}

- The burden of the disease translates into increased mortality and morbidity from a higher incidence of stroke in the black population (Table 1⁶⁻⁸).

- The major vascular complications of high blood pressure in blacks is cerebrovascular accident rather than myocardial infarction.⁹⁻¹¹

- Blacks have higher blood pressures at an earlier age than whites in the United States, the greatest difference appearing between 14 and 24 years.¹²

- When compared to other diseases, high blood pressure is a major cause of death in the black community of the United States.^{13,14}

In populations, blood pressure distribution is continuously unimodal with the shape and skewing of the distribution dependent on the mean level of blood pressure in a particular population. If the mean value is low the distribution is very symmetrical around the mean; a more

asymmetric distribution is obtained from higher mean values. Epidemiologic findings have been based on arbitrary standards and definitions, as there is no evidence for a threshold value or a specific point pressure that distinguishes hypertensive from normotensive individuals. Several arbitrary standards were obtained from morbidity and mortality data correlated with blood pressure measurements. The cutoff blood pressure values used were the point values from which mortality rates began to increase with increasing blood pressure. Such correlations in the black population do not result in the same standard as in other populations. Data from studies in Jamaican communities involving a 13-year follow-up of 1,065 black West Indians showed no correlation between blood pressure and total mortality until blood pressures exceeding 180/110 mm Hg were reached¹⁵ (Table 2). The use of the World Health Organization criteria of 160/95 mm Hg as a cutoff value for hypertension will overestimate the individual risk when applied to this Jamaican population.

It remains necessary however to categorize the black subject as hypertensive for management purposes, so that some kind of arbitrary standard will continue to be used, even though the cutoff point may not necessarily be the same for all populations.

Since the causes and effects of high blood pressure may be different among the various groups of the black population, our effort is to examine these differences, focusing on the incidence, prevalence, and risk factors of the disease.

Incidence

Information on the incidence of hypertension in the black population is scarce when compared to many studies that have provided a large body

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TABLE 1

INCIDENCE AND MORTALITY RATES FROM CEREBROVASCULAR DISEASES*

Source	Rate Type	Sex	Race							
			Black				White			
			45-54	55-64	65-74	75-84	45-54	55-64	65-74	75-84
Missouri study ⁶	Incidence Rate/1,000	Men	10.3	7.5	27.7	30.5	0.3	3.9	7.4	23.5
		Women	7.5		19.4	14.6	0	2.6	4.6	22.5
Chicago study ⁷	Incidence Rate/1,000	Men			27.3					16.7
		Women			31.3					28.3
National Center for Health Statistics ⁸	Mortality Rate/100,000	Men	89.4	223.9	515.8		24.7	80.3	290.8	
		Women	71.4	167.3	423.9		21.7	58.2	201.6	

*Abstracts from several studies and national health statistics.

of prevalence data. The problem appears to be one of high blood pressure detection and recording of information on persons in which the disease is present. Hypertensive subjects are usually otherwise healthy and in many cases they are young adults who rarely seek periodic medical examinations. Therefore traditional methods of obtaining the numbers of new cases in vast populations cannot be used.

Incidence studies designed to study hypertension in selected populations also present difficulties in follow-up over a creditable period of time. The few incidence studies available illustrate this problem.¹⁶⁻¹⁸ Other studies have examined populations in which states of ill health, such as obesity and diabetes, are present in addition to hypertension. Although these other diseases decrease attrition in such follow-up studies, the data obtained remain less applicable to an essentially healthy population.

Table 3 summarizes hypertension incidence information from four studies conducted on various black population subgroups, which show the incidence of hypertension varying from 5.5 to 77.7 per 1,000 population. These studies confirm our current lack of consistent definition in determining the incidence of hypertension. Each of the studies used different criteria on such critical factors as baseline normotensive blood pressure, follow-up hypertensive cutoff blood pressure level, and age groups of the population studied. Only one of the studies included the age group below 30 years, even though many authors are reporting that hypertension is becoming more and more prevalent in the below 30 years age group¹⁶⁻²² (Table 3).

Findings in the four studies in Table 3 are very similar to the pattern that has emerged from the prevalence data of several surveys: that the incidence of hypertension increases with age up to

TABLE 2

MORTALITY BY AGE AND SEX OF BLACK WEST INDIANS ACCORDING TO FOUR BLOOD PRESSURE CATEGORIES

Age (yrs)	Low (135/80)*			Moderate (135-159/80-94)			High (160-179/95-109)			Severe (179/109)		
	Person-years	Deaths	Mortality (per 1,000)	Person-years	Deaths	Mortality (per 1,000)	Person-years	Deaths	Mortality (per 1,000)	Person-years	Deaths	Mortality (per 1,000)
Men												
45-49	494	3	6	317	2	6	105	1	10	40	1	25
50-54	415	3	7	406	2	5	165	2	12	65	2	21
55-59	393	13	33	452	7	15	167	1	6	91	4	44
60-64	355	7	20	346	5	14	212	9	42	109	6	55
65-69	233	8	34	215	8	37	124	8	65	102	11	108
Women												
45-49	360	1	3	467	2	4	169	1	6	59	2	34
50-54	282	2	7	481	5	10	264	1	4	114	3	26
55-59	226	1	4	460	0	—	268	5	19	171	4	23
60-64	198	3	15	367	9	25	287	5	17	275	10	36
65-69	120	1	8	214	5	23	190	4	21	204	8	39

*Systolic and diastolic blood pressure in mm Hg. If systolic and diastolic pressures fell in different categories, the higher was used.

HYPERTENSION IN BLACKS/Oni

age 60, after which there is a plateau for women and a decline for men. Because of differing standards in the incidence data available, it is difficult to compare incidence rates in black population subgroups. Data about trends in these rates will not be available for some time, but such information is much needed in order to have a full understanding of the disease and to develop an epidemiologic description of it. The lack of incidence data in the younger age groups seriously handicaps efforts for determining etiology and incubation periods of hypertension.

Prevalence

Because of the lack of incidence information, by far the largest proportion of epidemiologic investigation and statistical analysis in the study of hypertension has been on prevalence information. The prevalence of hypertension in the black community varies from one population to the other. Several study results have shown a heavy burden of the disease in many socioculturally varied black populations^{18,23-25} while the disease is either nonexistent or is of a milder nature in others.²⁶⁻²⁸

In black communities in the United States the prevalence of hypertension ranges from 227 to 435

per 1,000 for the age group 15 years and over (Table 4^{5,29-33}). The lack of an acceptable universal standard imposes considerable variation on prevalence rates and limits efforts to compare rates among studies (Table 4). The differences possible from using different standards are clearly illustrated by a study done with rural Zulus,²⁹ in which rates varied between 3 and 153 per 1,000, depending on which level of diastolic blood pressure values was used as the standard (Table 5).

In spite of the problems of definition and standards, study data in Table 4 show the very high prevalence of high blood pressure in several black populations. Although some of these studies were done several years ago in the United States, recent prevalence data show a similar picture. For example, a Newark study conclusively showed that among 24- to 44-year-old blacks hypertension (DBP 95 mm Hg) prevalence is only a little less than 200 per 1,000 and in the 45 years or older age group the rate is over 330 per 1,000.³⁴ In other black subpopulations rates have been increasing. Recent studies conducted with urban Zulu³¹ show a higher prevalence of hypertension than when these same populations were surveyed in 1975.²⁵

In all of the populations discussed so far the prevalence of hypertension has increased with age (Table 6), a change most dramatic in the 1975

TABLE 3
INCIDENCE OF HYPERTENSION IN BLACK POPULATIONS—
COMPARISON OF FOUR STUDIES

Study Authors/Year	No. in Sample	Populations Studied	Limitation	Blood Pressure Standards Used		Incidence Rate (per 1,000 per year)
				Baseline Normotensive*	Follow-up Hypertensive*	
Keil et al ¹⁶ 1960-74	84†	Charleston, S. Carolina	Male ≥ Age 35	S ≤ 139/D ≤ 84	S ≥ 150/D 90	Social class low 21.0 high 5.5
Dischinger et al ¹⁸ 1973-76	2,672	Baltimore, Maryland Inner-City	Age 30-69	D < 95	D ≥ 95 or currently on HBP medication	All 63.3 men 76.0 women 54.6 Social class sons of professionals 22.6 sons of laborers 77.7
Tyroler et al ²² 1960-67	Unclear‡	Evans County, Georgia	Age 35-59	D < 90	D ≥ 95	All 40.0
Johnson et al ¹⁷ 1960-69	272	Evans County, Georgia	Age 15-29	BP ≤ 130/85	S ≥ 140/D ≥ 90	All 173 men 250 women 205
	343		Age 15-29	BP ≤ 140/90	S ≥ 140/D ≥ 90	All 227 men 362 women 246

*Cutoff level mm Hg.

†Sample size really unclear.

‡Part of a total black and white population of 582.

TABLE 4

PREVALENCE OF HYPERTENSION IN BLACK POPULATIONS—
COMPARISON OF SIX STUDIES

Population Studied	No. in Sample	Blood Pressure Standard Used*	Limitation	Prevalence (per 1,000)					
				Definite:		Borderline:		Rate adjusted:†	
Holms County, Mississippi U.S.A. (Rural) ³⁰	2,818	Definite 160/95 Borderline 140-159/90-94	Age 18-79	Men	435	Men	211	Women	212
				Women	395	Women	212	All	212
				All	400				
Durban, South Africa (Urban) ³¹	994	S $\geq$ 160 and/or D $\geq$ 95	Age 15-90	Men	227				
				Women	275				
14 Different Communities in U.S.A. ⁵	41,446	D $\geq$ 95 or on anti-hypertensive medication	Age 30-69	Men	362	Rate adjusted:†	Men	334	
				Women	382		Women	335	
Ubombo, KwaZulu South Africa (Rural) ²⁹	1,000	S $\geq$ 160 and/or D $\geq$ 95	Age 15-70	Men	100				
				Women	110				
				All	107				
Hampton County, South, Carolina U.S.A. (Rural) ³²	921	S $\geq$ 150 and/or D $\geq$ 90	All	Men	283				
				Women	344				
Igbo-ora Nigeria (Rural) ³³	3,000	S $\geq$ 160 and/or D $\geq$ 95	All	All	50				

*Systolic and diastolic blood pressure in mm Hg.

†Rate adjusted by age, weight and education.

study of urban South African blacks. The prevalence rose from no hypertension at age 10 to 100% hypertension at age 75 or over. In the four studies examined (Table 6) hypertension is more prevalent in the black man in the earlier years with a crossover to a higher prevalence in the black woman occurring at about age 30 to 40. In about this latter age group, mean arterial pressure rises more steeply in women than in men (Table 7).

In the studies described in Table 4 the disease is least prevalent, among all age groups, in the rural black South African.^{29,32} Just over a decade ago it was recorded that the rural black South African did not have hypertension.³⁵

Indeed, other isolates of population have been identified in which hypertension prevalence was very low, such as in Easter Islanders, Australian Aborigines, Congo pygmies, and nomads of East Africa.^{36,37} Some authors have tried to explain this low prevalence by differences in historical and anthropologic experience of the population. The most commonly accepted thesis for the low prevalence in these populations has been the absence of urbanization and the accompanying psychosocial stress.

It is therefore expected that the more exposed the black population is to urban living the higher the prevalence of hypertension in the exposed group. To a very large extent this has been so.

TABLE 5

PREVALENCE OF DIASTOLIC HYPERTENSION IN THE ZULU ACCORDING TO DIFFERENT CUTOFF POINTS*

Diastolic Blood Pressure (mm Hg)	Men		Women		Total	
	No.	Rate†	No.	Rate†	No.	Rate†
90	50	152.9	100	151.5	150	152.1
95	25	76.5	55	83.3	80	81.1
100	20	61.2	38	57.6	58	58.8
105	7	21.4	15	22.7	22	23.3
110	6	18.3	14	21.2	20	20.3
115	6	18.3	6	9.1	12	12.2
120	5	15.3	4	6.1	9	9.1
125	5	15.3			5	5.1
130	2	6.1			2	2
135	1	3.1			1	1

*Adapted from Seedat et al.²⁹

†Rate per 1,000 population.

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Blood pressure and associated factors were compared in tribal and migrant urban Xhosa people of Southern Africa.³⁸ In the urban migrant group, hypertension was prevalent and blood pressure rose with age, whereas in the tribal group, hypertension prevalence was low and blood pressure rose little with age. In Kenya and Uganda hypertension was reported to be very rare in the 1950s, but with increased urbanization, hypertension was one of the common causes of death in both countries in 1980.³⁹

There have been other studies with results contrasting the urbanization thesis. Kloppers and others, who revisited the Bushmen of Southern Africa and Botswana in 1981,⁴⁰ reported a high hypertension prevalence rate of 210 per 1,000 Bushmen population and 240 per 1,000 Botswana aged 16 to 50 years who had maintained their tribal lifestyle. Other authors²⁶ compared the Sere blacks of Senegal who lived in a traditional pastoral setting and the Sere blacks who had been rapidly exposed to urbanization and 20th century life. In both Sere populations blood pressure prevalence is low and blood pressure curves as they relate to age are relatively flat (black urban female may be a weak exception).

In essence, while change in living condition and culture has suspiciously pointed to the factor of stress and body physiologic adjustment that may

manifest in increased blood pressure, the evidence needs to be more clearly described as to the definitive factor or factors in these sociocultural changes that could be etiologically linked to sustained high arterial pressure.

Risk Factors

Several factors associated with hypertension in black populations have been studied, many having both genetic and environmental components. Research to date has not accurately defined the extent of the environmental and genetic component of the factors addressed here. Nor has the impact on the development of high blood pressure been accurately defined, although much information exists as to the nature of the factors, their relationship to hypertension, their temporal and geographic variation, and the effect on the disease produced by modification of these factors.

Body Weight and Nutrition. Body weight is one of the more epidemiologically established risk factors associated with hypertension. Several studies have demonstrated this association.^{5,17,32,41,42} Table 8 shows an increase in blood pressure as the percentage overweight increases in a subpopulation of 916 black subjects. The percentage overweight is derived from comparing subjects' weight with Metropolitan Life Tables for weight by sex and height. The Quetelet Index, a measure of body weight derived from the formu-

TABLE 6

PREVALENCE OF HYPERTENSION AND INCREASING MEAN ARTERIAL BLOOD PRESSURE WITH AGE IN SELECTED BLACK POPULATIONS—COMPARISON OF FOUR STUDIES*

Age Group	Rural Mississippi ³⁰ BP ≥ 160/95		Rural South Carolina ³² BP ≥ 150/90		Urban Africa ³¹ BP ≥ 160/95		Rural South Africa ²⁹ BP ≤ 160/95	
	Men	Women	Men	Women	Men	Women	Men	Women
5								
10-	}		}	25			}	0
15-		15						20
20-	}	66	}	242		14	}	38
25-		35		168		65		26
30-	}	345	}	357		102	}	21
35-		239		304		122		43
40-						134	}	37
45-						258		115
50-						270	}	126
55-						384		209
60-						456	}	170
65-						551		176
70-						550	}	429
75-						500		278
80-						600		
85-						667		

*Number per 1,000.

la (weight/height²) x100, has also been used in studies measuring the nature of the association between body weight and hypertension. A positive association was found.¹⁷

Weight ratios (a ratio of subjects' weight and ideal weight as determined from actuarial tables) have also been used in studies relating body weight to high blood pressure, with positive relationship found between the two.^{5,41} In these studies the percentage of hypertensives increased with increased weight ratio. The reverse to this has been shown to be true in a study in which subjects losing 10 lb became normotensive twice as often as those gaining 10 lb.²²

These weight and blood pressure findings have been repeated in different age groups. Similar body weight-hypertension association has been found in children 5 to 11 years old,⁴³ 4 to 15 years old,⁴⁴ young adults 15 to 29 years old,¹⁷ and adults 30 to 69 years old.⁵

Body weight is not only associated with the presence of blood pressure but also with the subsequent development of the disease.¹⁷ The body weight-hypertension relationship is weaker in the black than other populations,^{22,45} and among blacks the relationship is weaker in the black man.¹⁷

It should be mentioned that at least one study has found no association between initial Quantex Index (weight for height) and/or weight gain, and the incidence of hypertension in a study of 585 cases and controls.¹⁸ In this study the follow-up period was three years, which may have been too short for a change in weight to influence a change in blood pressure. Those findings raise the issue of "lag time" and latent period. The time it takes for an increase in body weight to translate into an increase in blood pressure is essentially unknown.

Nutrition is another pertinent factor in hypertension as it affects black populations. Food and nutrients affect not only body weight but also have subtle but important effects on human behavior.⁴⁶ High carbohydrate meals increase brain serotonin, high protein diets do not. Serotonin neurons participate in a wide range of behavior patterns. The role of behavior and stress will be discussed later. Salt intake, an important aspect of nutrition, also relates to high blood pressure.

Reduction in salt intake is probably the most commonly used nonmedication therapy in the control of hypertension, and hypertensive subjects tend to comply more with reduction in salt intake than with reduction in caloric intake,⁴⁷ al-

TABLE 7
MEAN ARTERIAL BLOOD PRESSURE ACCORDING TO AGE IN HAMPTON COUNTY, SOUTH CAROLINA^{32*}

Age Group	Men	Women
5	114.3/63.8 132/71.4	114.6/65.6 126.9/74.9
10		
15-		
20-		
25-		
30-	137.8/77.4	130.8/84.9
35-	147.4/87.4 145.7/88.3	142.3/87.4 155.4/96.4
40-		
45-		
50-		
55-		
60-	161.9/94.8	163/94
65-	163.7/87.5	164.5/86.5
70-		
75-		
80-		
85-		

*Blood pressure in mm Hg.

though salt as an etiologic factor in hypertension is not well established.

The best contrast data showing the strongest salt-high blood pressure relationship have been found mostly in studies comparing primitive and urban societies.⁴⁸⁻⁵⁰ The black primitive populations of rural Uganda⁵¹ and the Kalahari desert of Africa⁵² stand out as examples of populations in which both salt intake and the prevalence of hypertension are low. In these two populations there is hardly any increase of blood pressure with age. This low salt/low hypertension prevalence relationship should be interpreted with caution. In the majority of black populations in which this relationship occurs there is little stress, urban tension, and noise, and the fast pace of life associated with industrialized societies. These factors may be more pertinent to the genesis of hypertension than salt intake. In similar populations, even body weight did not show a relationship to the presence of hypertension.⁵³ When these people attempted to adapt to modern ways of life, their blood pressure rose and hypertension appeared. Almost simultaneously with this rise in blood pressure is an increase in salt intake and urinary sodium excretion.⁵⁴

Although studies of unacculturated people are frequently cited, the evidence for the role of salt in the causation of hypertension remains circumstantial. In almost every epidemiologic survey of hypertension where the importance of salt has been emphasized repeatedly, a strong positive causative relationship between salt intake and

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hypertension has evolved without concrete proof demanded of other epidemiologic associations.^{50,53,55,56} For instance, in defined urban black populations, there is usually no significant difference in salt intake between hypertensive and normotensive subjects. Examination of 89 black subjects did not show any difference in sodium intake between hypertensive and normotensive subjects.⁵⁷ Dietary salt habits of normotensive and hypertensive patients were not significantly (statistically) different in a Cleveland study of 717 subjects.⁵⁸ Although a survey of 174 inner-city Philadelphia black schoolchildren found an increased utilization of salty food with age, the study failed to relate any increase in blood pressure to increased salt use.⁵⁹

The relationship between salt and hypertension is now being studied at the molecular level, where the role of salt metabolism may become clear. Abnormalities of sodium and potassium movement across the red cell membrane have for example been found in untreated black West Indian hypertensives and their normotensive relatives. This abnormality is not found in normotensives with a negative family history of hypertension.⁶⁰ Many such studies including studies in renin and aldosterone are ongoing and may hold the key to a conclusive answer in the future.

Stress, Behavior and Social Class. Stress and behavior types are important risk factors for hypertension in the black population, but these factors have not been fully studied. Difficulties in measuring stress have been the main obstacle in stress-hypertension studies.

Effects of stress on blood pressure are mediated through the sympathetic nervous system. Blood pressure is increased when the sympathetic nervous system is stimulated, and decreased when parasympathetic activity is stimulated, promoting relaxation. The existence of the relaxed state in itself does not ensure the occurrence or persistence of lower blood pressure in black subjects,⁶¹ although the absence of stress is commonly related to lower blood pressure.

Mortality studies indicate that black men in high stress areas had hypertension-related death rates that were twice that of their counterparts in low stress areas.⁶² Family support has always been accepted as a means of decreasing the physiologic effects of stress on an individual. A study examining the distribution of blood pressure and associated biosocial factors found that those subjects with documented family support had a lower blood pressure than those without.⁶³ Other studies in black populations in urban areas have shown blood pressure rises with increasing psychophysical stress.^{64,65}

Some studies did not find the stress-hypertension relationship described above. In one study blood pressure measurements did not show any significant differences between two groups of black subjects—one classified as a high stress group and the other a low stress group.⁶⁶

Coronary-prone behavior, commonly referred to as "type A" behavior, has also been associated with highly stressful day-to-day performance and high blood pressure.^{67,68} Some findings in black subjects differ from those of the general population. "Type A" black women were not significantly more likely to be hypertensive than "type B" black women (non-coronary prone) in a study

TABLE 8
MEANS AND STANDARD DEVIATIONS OF SYSTOLIC AND DIASTOLIC BLOOD PRESSURES (MM HG)
BY PERCENT OVERWEIGHT AND SEX GROUPS*

Percent Overweight	Systolic BP						Diastolic BP					
	Black Men (N = 457)			Black Women (N = 459)			Black Men (N = 457)			Black Women (N = 459)		
	(N ₁)	Mean	SD	(N ₂)	Mean	SD	(N ₁)	Mean	SD	(N ₂)	Mean	SD
-10%	(18)	124.8	19.1	(30)	119.0	11.4	(18)	80.3	11.9	(30)	77.5	10.5
-9-0	(69)	125.3	17.3	(71)	123.0	18.8	(69)	81.5	9.8	(71)	80.5	10.2
1-10	(120)	127.5	14.8	(95)	124.1	17.9	(120)	83.9	10.4	(95)	81.1	11.8
11-20	(122)	128.9	17.6	(83)	125.9	16.9	(122)	83.4	11.2	(83)	80.8	11.5
21-30	(72)	134.9	24.0	(69)	128.1	19.1	(72)	86.9	10.3	(69)	83.9	11.6
31-40	(33)	136.8	18.5	(37)	132.7	25.7	(33)	90.2	12.7	(37)	86.3	17.0
40%	(23)	134.6	11.1	(74)	136.3	22.6	(23)	88.4	7.5	(74)	86.3	13.4

*Adapted with permission from Harburg et al.⁴¹

Original figures from which this table was adapted were adjusted for age within race-sex groups.

among inner-city residents.⁶⁹ At least two other studies have yielded similar results.^{70,71}

Social class as a factor in hypertension is complex, since this factor itself consists of several other interacting factors (i.e., education, occupation, income, place of residence). The idea that an executive job increases stress contrasts those of increases in stress levels that have been associated with worsening poverty. When distributions of blood pressure by social class are examined, more often than not, blacks in the lowest social class had the highest mean blood pressure.⁷²

Social class is emerging as a powerful factor in the etiology of high blood pressure. This factor has not really been studied with reliable uniformity and depth. In many studies, social classification is arbitrary and incomplete. In those studies in which efforts were made to correct results for differences in social class, blood pressure correlation to other factors was attenuated.^{16,73} There has always been a (statistically) significant lower social class-hypertension relationship in the black population.^{5,38,74,75}

Other Factors. It is recognized today that non-genetic factors contribute more to the variation in blood pressure than do genetic factors among black subjects.⁷⁸ Many studies claiming genetic comparison have only carried out racial comparisons embodying more than the differences in the genetics of compared races. The difference in social status is of importance, but family studies have suggested a significant familial aggregation of high blood pressure,^{77,78} and these findings have been further confirmed by a study of twins.⁷⁹ It should be mentioned, however, that within the black population, at least one study has failed to confirm a familial aggregation.⁸⁰

Probably due to difficulties in making a straight gene comparison between normotensives and hypertensives, those studying genetic links in hypertension have used alternative markers of genetic attributes. Studies conducted to examine the genetic factor in hypertension have relied greatly on these markers. Genetic markers are used in an effort to group genes and disentangle environmental influences from genetic ones. These markers are actually definable physiological or pathological states that occur in a determined Mendelian fashion.^{81,82} If a marker occurs with some consistency with hypertension, then the pattern of that marker is followed to study the disease (hypertension).

Darker skin color has been related to higher

blood pressures, especially for black men.⁸³ Another study of 433 black subjects has concluded that there is a statistically significant correlation between diastolic blood pressure and the percentage of African admixture found in a black individual⁸⁴; essential hypertensives have been found with a lower frequency of the S gene, thus associating hypertension with variation of the MNS blood grouping system.⁸⁵ Almost study by study, these results have been challenged by findings from other studies. Data have been developed that do not support the hypothesis that skin color is related to the incidence of hypertension¹⁶; inconclusive relationships were found between family heredity estimates and blood pressure.⁸⁶

Genetic studies in hypertension are confounded by a strong environmental interaction, which can hardly be separated from genetic effects. The incidence of hypertension is influenced by prevailing environmental factors, many of them strongly related to the genetic disposition of the individual. Sociocultural factors strongly linked to population blood pressure also reflect the genetic endowment of that population. It is known, for example, that the responsiveness of blood pressure to sodium is reduced by a high dietary content of calcium.¹² The major nutritional source of calcium is milk derivatives. A large population of blacks are intolerant of lactose, a condition most probably genetically determined. Thus, a cultural habit of high salt intake may translate to higher blood pressure because of a genetic factor related to the process. In conclusion, several factors affecting hypertension in black populations remain to be effectively studied.

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Neurofibromatosis

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Neurofibromatosis (NFT) is an autosomal dominant hamartomatous disorder characterized by cutaneous pigmentary changes, multiple tumor types of neural origin, and predisposition to various malignant and nonmalignant changes in tissues derived from all germ cell layers. Von Recklinghausen's description of two patients in 1882 is the source of the modern eponym, von Recklinghausen's disease (VRD).¹

Diagnosis

The most consistent features of diagnosis are cafe au lait spots (CLS), tumors of the skin and peripheral nervous system, and iris lesions known as Lisch nodules. CLS are tan, circumscribed skin lesions found over any part of the body, although rarely seen on the palms, soles, or penis. Crowe and associates,^{2,3} after studying large numbers of patients with and without NFT, state that six or more CLS which exceed 1.5 cm in the broadest diameter are presumptive evidence of NFT even in the absence of a positive family history. When less than six CLS are present and there is a positive family history, the existence of the disease depends on the similarity of the patient's pigmentation to that of the affected members, especially siblings.

Whitehouse⁴ has defined a pediatric criterion as five or more CLS at least 0.5 cm in diameter in children 5 years of age or younger. Occasionally, the CLS have an area of depigmentation surrounding them ("halo effect") that may represent an autoimmune phenomenon.⁵ Another important diagnostic sign, freckling, occurs most

often in the axillae, but may also occur over the neck and perineum.² It occurs in approximately 20% of patients with NFT, but usually not in the absence of other hyperpigmentation.⁶ CLS in patients with NFT contain more DOPA positive melanocytes with giant granules than the surrounding skin. In contrast, patients with CLS but without NFT have fewer DOPA positive melanocytes and no giant granules,⁷ although normal size melanosomes as well as melanoma type melanosomes have been found in NFT patients.⁷

Neurofibromas are the most common tumors found in NFT, and are considered the hallmark of this disorder. Also common is the plexiform neurofibroma and less common, the neurolemmoma. Neurofibromas, also known as molluscum fibrosum, are soft and fleshy and can be invaginated into the skin by pressure ("buttonholing"). Pregnancy and puberty tend to enlarge these lesions, though the mechanism is unknown.⁸ Neurofibromas are characterized by diffuse proliferation of Schwann cells, perineural cells, and fibroblasts.⁹ Neurofibromas are well-encapsulated dermal tumors composed of lightly eosinophilic, thin, wavy fibers among which are scattered oval to spindle shaped nuclei.¹⁰ Electron microscopy demonstrates the Schwann cell as the predominant cell type along with perineural cells and fibroblasts of the endoneural type.^{11,12} Metachromatic stains characteristically demonstrate mast cells.¹³ These tumors may exist in any combination of size, shape, number and location.

Recently, the areolar neurofibroma, especially in postpubertal women, has been considered a cardinal feature of NFT.¹⁴ The plexiform neurofibroma is a morphologic variant of neurofibroma that forms tortuous cords along the segments and branches of peripheral nerves. Upon palpation, it feels like a "bag of worms." It develops distally, coursing along a nerve, and may approach the

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brain or spinal cord.¹⁵ The neurolemmoma is a solitary tumor that can arise from the Schwann cells of any peripheral or sympathetic nerve. It forms within the epineural sheath, and as it grows, forces the nerve fibers to spread over the surface of the tumor. Benign tumors of nerve fibers (ganglioneuromas) and mature ganglion and paraganglion cells (paraganglioneuromas) are occasionally seen in the subcutaneous tissues in VRD in solitary or multiple nodules.

Lisch nodules are lesions of the iris, are the most common ophthalmic manifestation of NFT, and may be universally present,¹⁶⁻¹⁸ although they may also occur in 5% to 10% of the general population. They are clinically insignificant and vary in size from those clearly recognizable with the naked eye to those identifiable only with the slit lamp.¹⁹

Genetic Epidemiology

NFT may be the most common single-gene disorder affecting the nervous system. In the United States, it is more prevalent than Huntington's disease, Duchenne's muscular dystrophy, and myotonic dystrophy combined.²⁰ With a prevalence of 60 per 100,000 people, there are over 100,000 affected individuals in the United States alone. There is no sexual, racial, or ethnic predilection. The inheritance is autosomal dominant, with complete penetrance but marked clinical variability. Approximately 50% of offspring of affected parents will have NFT, and approximately one-half of VRD arises from spontaneous mutation.² The spontaneous mutation rate would be 1×10^{-4} , the highest spontaneous rate yet studied, but it is believed that Crowe overestimated the incidence of NFT, and the mutation rate is more likely 4.4 to 4.9×10^{-4} , a rate similar to that of other autosomal disorders.²¹

Etiology

The etiology of NFT is largely unknown. Endocrine and neuroendocrine cells share common properties of amine precursor uptake decarboxylation (APUD), argyrophilia, metachromasia, characteristic enzymes, and specific hormone production.²² These "APUD" cells are thought to be of neural crest origin, and include the islets of Langerhan's, the argentaffin cells of the gastrointestinal tract, the adrenal medulla, thyroid parafollicular C-cells, oat cells of the lung, the pituitary corticotrophs and melanotrophs, and

melanocytes. The common neural crest origin of the tissues likely relate NFT and multiple endocrine neoplasia as similar aberrations of the same system. The theory of a multiple cell origin of NFT has been given credence by statistical genetic analysis of cutaneous neurofibromas. Studies of neurofibromas of a woman who was heterozygous for two X-linked G-6PD alleles indicated that the number of starting cells must be at least 150.²³

Increased serum levels of a "nerve growth stimulating factor" are present in patients with NFT.²⁴ Nerve growth (NGF) was proposed as a mediator of increased nervous tissue growth and was found to be elevated in some patients with NFT.²⁵ Preliminary evidence suggests that NGF does influence differentiation of mesodermal tissues, perhaps accounting for osseous and other malformations associated with NFT,²⁶ but others have reported considerable variability in both the activity and structure of NGF in NFT (Table 1).²⁷⁻³⁰ Researchers have implicated epidermal growth factor (EGF) as a hormonal mediator of NFT.³¹ EGF is a polypeptide and a known stimulant for cell proliferation and DNA synthesis and it binds to human fibroblasts.^{32,33} EGF demonstrates diminished binding to NFT fibroblasts, which may account for disordered growth and malignant transformation of neurofibromas.³⁴ Many aspects of EGF and its relationship to NFT require further definition.

Clinical Expression

NFT exists in a common peripheral form and a recently documented central form,³⁵ but there are many clinical and biochemical differences between the two (Table 1). Central NFT is characterized by multiple Schwannomas of the cranial and spinal nerves, and frequently has intracranial, dural and intraspinal tumors and abnormalities.^{36,37} Central NFT may occur without any skin lesions, and about 50% are associated with meningiomas and about 45% are associated with gliomas.^{38,39} The peripheral type of NFT contains skin lesions such as CLS and axillary freckling. The tumors are usually multiple neurofibromas, palpable along the course of the peripheral nerves. The bimodal course described in peripheral NFT (not observed in central NFT) recognizes two age peaks when problems are severe,²⁶ the first during infancy or early childhood, when signs generally appear, and the second in middle age, with malignant transformation of the tumors.³⁹ Biochemically, in the central form there

is an increased level of antigenically distinct NGF with normal or decreased activity. The opposite situation exists in peripheral NFT (Table 1). This suggests that different mutations are responsible for the two forms. EGF has not been examined in the distinction of the central versus peripheral NFT.

Various tissue abnormalities involving all germ cell lines exist in association with NFT (Table 2).

Skeleton and Soft Tissue. Kyphoscoliosis of all regions of the spine is the most common skeletal deformity encountered in NFT. The incidence is 10% to 15%.^{2,40} Scalloping ("fish mouthing") of posterior vertebral bodies, probably related to dural ectasia, is another common finding and may be associated with neurofibromata, meningiomas, and rarely, meningiomas.⁴¹ Posterosuperior orbital dysplasia is a commonly associated skull defect in NFT.⁴² Other reported skull manifestations include enlargement of the optic foramina due to optic glioma, a defect in the lambdoid suture especially on the left (a common finding), and enlargement of the internal canal with and without acoustic neuroma.¹⁶ Macrocranium is a characteristic finding in 75% to 85%.⁴³

Erosive changes of long bones and ribs caused by adjacent neurofibromas are well known.⁴⁴ The "twisted ribbon" deformity and notching of the ribs and occasional wavy margins of cortical bones

are thought to be due to periosteal hemorrhage. Congenital bowing of the tibia and fibula with or without pseudoarthrosis may be present in up to 97% of children with NFT.⁴⁵ Subperiosteal hemorrhage causing cyst formation is thought to be due to mesodermal dysplasia involving the periosteum rather than any intrinsic vascular abnormality.⁴⁶ Elephantiasis neuromatosa (diffuse enlargement of an extremity or digits) is one of the most dramatic, and bony overgrowth underlying the enlargement in time leads to verrucous or villous skin hypertrophy.⁴⁸

Central Nervous System. Central nervous system lesions are common in NFT and include acoustic neuromas, optic nerve gliomas, meningiomas (often multiple), polar spongioblastomas, neurofibromas of the cranial nerves, and hamartomatous lesions.⁴⁹ Evidence of NFT is found in 10% to 40% of patients with optic nerve gliomas, and is perhaps much higher.⁵⁰ Acoustic neuromas, when bilateral, are considered by most authorities to be a diagnostic sign of NFT.⁵¹ The most common intraspinal tumors are neurofibromas, meningiomas, astrocytomas, ependymomas, and hamartomatous lesions. The neurofibroma may extend through the intervertebral foramen as a "dumbbell tumor."⁴⁹ Aqueductal stenosis, hydrocephalus, and syringomyelia have been noted.^{49,52} Seizures, mental retardation, and radicu-

TABLE 1
COMPARISON BETWEEN CENTRAL AND PERIPHERAL NEUROFIBROMATOSIS*

	Central	Peripheral
Genetic		
Prevalence	0.1 per 100,000	60 per 100,000
Total affected in US	Less than 1,000	Over 100,000
Onset	2nd and 3rd decade	1st decade
Inheritance	Autosomal dominant	Autosomal dominant
Mutation rate	Very low	Very high: (1×10^{-4})
Clinical		
Cafe-au-lait spots		
one or more	42%	97%
six or more	0	75%
Cutaneous neurofibroma	Less common	Very common
Malignant transformation	Not encountered	5%
Associated osseous malformation	Not encountered	Very common
When mother affected (maternal effect)	Onset earlier	Course more severe
Biomodal course	Not encountered	Present
Pregnancy exacerbation	Present	Present
Acoustic neuroma	96%	5%
Biochemical		
Nerve growth factor—Immuno activity	Increased	Normal
Nerve growth factor—Biological activity	Normal or decreased	Increased
Epidermal growth factor	—Distinction not studied—	

*From Eldridge R: Central neurofibromatosis of bilateral acoustic neuroma. *Adv Neurol* 29:57-65, 1981.

lar pain are reported but without clear etiology, although abnormal cortical architecture and glial proliferation is present in a significant number of NFT patients.⁵³

Vascular System. Vascular malformations in NFT are common yet poorly appreciated facets of NFT.⁵⁴ These problems include hypertension from renal artery stenosis and/or abdominal coarctation.⁵⁵ Intracranial arterial occlusion causing neurologic dysfunction also has been reported.⁵⁶ Congenital heart disease, especially pulmonic stenosis, is increased in NFT.⁵⁷

Ophthalmic. Pulsating exophthalmos due to spheno-orbital dysplasia (*v.s.*), with resultant herniation of cranial contents into the orbit, is a dramatic manifestation of NFT.⁵⁸ The sinuous deformity of the eyelid border, with the inner portion arched upward and the outer portion curved downward, is considered a classic sign of NFT of the orbit.⁵⁹ The prevalence of glaucoma is increased with NFT.⁶⁰ Lisch nodules and optic nerve gliomas have already been discussed.

Intrathoracic. Posterior mediastinal neurofibromas and meningoceles may present as mediastinal masses.⁶¹ Presence of neurologic signs favors neurofibroma in the differential diagnosis.⁶² Interstitial pulmonary fibrosis, of unknown cause, has recently been found to be increased in NFT.⁶³

Gastrointestinal. Though the ileum is the most frequent site of gastrointestinal neurofibromas, the incidence being 10% to 25%, all other portions of the gastrointestinal tract have been reported to be involved.⁶⁴ Seventy percent of the tumors are neurofibromas, 20% leiomyomas, and 10% miscellaneous tumors.⁶⁴ Neurofibromas arise most often from Auerbach's plexus, usually as pedunculated masses along the serosa of the antimesenteric border, thereby causing an extrinsic rather than intraluminal defect. Barium enema is usually negative, and angiography is needed to localize the lesion.⁶⁵ The most common manifestations are abdominal pain, gastrointestinal bleeding, abdominal mass, and signs and symptoms of bowel obstruction. Carcinoid tumor and APUD system pathology have been reported to

TABLE 2

AREAS AND TYPES OF INVOLVEMENT IN NEUROFIBROMATOSIS

Skin	Ophthalmic
Neurofibromas	Pulsating exophthalmos
Cafe au lait spots	Sinuous deformity of eyelid border
Axillary freckling	Glaucoma
Skeleton and Soft Tissues	Optic nerve glioma
Kyphoscoliosis	Lisch nodules
Posterior vertebral body scalloping	Intrathoracic
Skull defects	Posterior mediastinal neurofibromas and meningoceles
Macrocranium and Macrocephalus	Interstitial pulmonary fibrosis
Bony erosion from tumor	Gastrointestinal
Notching of ribs	Neurofibromas
Primary marginal defects of long bones	Carcinoid
Congenital bowing and pseudoarthrosis of tibia and fibula	Urinary Tract
Elephantiasis neuromatosa, verrucous or villous skin hypertrophy	Neurofibromas of bladder
Neurofibromas	Neurogenic bladder
Subperiosteal hemorrhage and cysts	Retroperitoneal neurofibromas affecting ureters
Central Nervous System	Endocrine System
Intracranial tumors	Pheochromocytoma
Intraspinal tumors	Sipple's syndrome
Aqueductal stenosis and hydrocephalus	Reduced fertility
Syringomyelia	Hyperparathyroidism
Mental retardation	Hypoglycemia from insulinoma
Seizures	Myxedema
Radicular pain	Obesity
Vascular System	Precocious or retarded sexual development
Vessel-wall hyperplasia	Gigantism or acromegaly
Microaneurysms	Hypopituitarism
Renal artery stenosis and/or abdominal aortic coarctation with hypertension	Goiter
Intracranial arterial occlusive disease	Diabetes insipidus
Congenital heart disease	

coexist with NFT in a few cases.⁶⁶

Urinary Tract. Though kidney and ureter involvement in NFT is extremely rare, lower urinary tract involvement, mainly vesical neurofibromas, is not uncommon.⁶⁷ Other problems include involvement of the adjacent viscera, ureteral obstruction by retroperitoneal tumors, and autonomic nerve involvement causing neurogenic bladder.⁶⁸ The main clinical presentation relates to urinary tract obstruction, although most patients are asymptomatic.⁶⁹

Endocrine System. The most consistent association is between pheochromocytoma and NFT,⁷⁰ within an incidence ranging from 4% to 20%, although in some studies, it was much lower (approximately 0.5%).⁷¹ Sexual precocity is the most common endocrine abnormality, and in the female, it must be differentiated from Albright's syndrome (polyostic fibrous dysplasia, precocious puberty, and CLS with irregular borders). The cause of the sexual precocity is considered to be hypothalamic gliosis.⁷² Sipple's syndrome (pheochromocytoma and medullary thyroid cancer) has also been noted in association with multiple neurofibromas.⁷³ Other reported, but inconsistent, associated abnormalities include reduced fertility,² hyperparathyroidism,⁷⁴ insulinoma,⁷⁵ myxedema,⁷⁶ obesity and retarded sexual development, acromegaly, hypopituitarism, goiter, and diabetes insipidus.⁷⁷

A worrisome event is the possible neoplastic complications of NFT. Neurosarcomatous degeneration is the most common and most malignant tumor in NFT.⁷⁸ The reported incidence of malignant degeneration is 2% to 29%,² but most recent studies indicate an incidence of 3% to 5%.^{79,80} These tumors occur in the third and fourth decades of life and should be suspected if a stable tumor increases in size or shape.⁸¹ Pain may occur at this stage, but numbness, tingling, and motor weakness are rare.⁸² Most cases occur in extremities where biopsy or excision, if needed, is easily done. The treatment is wide excision or amputation, since the tumor is highly radioresistant, and most patients die within two to three years once this complication arises.⁸² The fear that biopsy or previous trauma may contribute to malignant change in a benign neurofibroma is now felt to be groundless.^{79,83}

A wide variety of other malignant associations has been found in conjunction with NFT. Central nervous system lesions are especially common. Optic nerve glioma of childhood and acoustic neuroma have already been mentioned. Gliomas

of the hemisphere and the eighth nerve, and multiple meningiomas of the posterior fossa, also occur with increasing frequency.⁸⁴ Thyroid medullary carcinoma, like pheochromocytoma, is derived from neural crest elements, and this may explain its association with NFT.⁸⁵ Basal cell carcinoma, melanoma,⁸⁰ and nonneural neoplasms, particularly leukemia⁸⁶ and Wilm's tumor,⁸⁷ have been reported with increased frequency in NFT but this warrants further investigation to establish an etiologic link.

Management

Treatment recommendations are aimed at the palliation or prevention of the sequelae of NFT.⁸⁸ Large, painful, conspicuous, or inconveniently situated tumors should be removed. Early removal is easier, and carries less mortality/morbidity, and also improves cosmetic results. Neck and chest tumors carry a high risk of subsequent vertebral angulation with spinal cord compromise and should be aggressively treated. Early follow-up is necessary to detect nonmalignant changes, i.e., scoliosis, and malignant sequelae, i.e., pheochromocytoma, of NFT and to treat accordingly. Medical therapy is largely ineffective. Only recently has some thought been given to complete or partial mast cell mediation in NFT lesions.¹⁴ This requires further investigation, as it may offer some avenue for medical therapy of NFT.

Counseling

Genetic counseling is an important aspect of management. Affected members should be informed that their offspring will have a 50% chance of having NFT with virtually 100% penetrance, but markedly variable clinical expression, as noted under "Natural History." That disease in the mother may cause an early onset in the central form⁸⁹ and a more severe course in the peripheral form⁹⁰ should be mentioned. Careful screening is important, as NFT, especially in the central form, may become symptomatic only after puberty or during pregnancy.⁹¹ NGF is known to be present in amniotic fluid, and may offer an avenue for in utero diagnosis of NFT,⁸⁹ but the role of NGF in the etiology of NFT must be clarified before this becomes a reality. Family limitation by affected members offers prevention of NFT.

Prognosis

Prognosis of NFT is quite uncertain because of its variable clinical expressions.⁹² Approximately 20% of the patients have serious difficulties, but

most live a normal life span and are able to carry out productive activities.

Though progression of symptoms is the rule, no one feature correlates with the severity of any other feature. Progressive growth of neurofibromas may require surgical reduction, especially those in paraspinal locations, in order to prevent disabling symptoms.⁹³

Most children with NFT are free of cutaneous neurofibromas until pubescence. Growth is slow and progressive for both number and size, but may increase rapidly during puberty and in women during pregnancy. Fear of malignant transformation dictates that a constantly traumatized tumor be removed.

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Atypical Septic Arthritis Due to *Neisseria Meningitidis*

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Septic arthritis occurs most commonly in children under 2 years of age, and is estimated to complicate 1.6% to 16.6% of cases of meningococcal infections.¹ We report the case of a child with septic arthritis and superficial cellulitis of the finger due to *Neisseria meningitidis* in whom no evidence of systemic infection was present.

Case Report

An 8-month-old black male infant was admitted to the orthopedic service for swelling of the third digit of the left hand for 24 hours. The child had been healthy except for a mild upper respiratory tract infection one week earlier. There was no history of trauma, fever, rash or sore throat, and there were no recent illnesses in the family.

Physical examination revealed a temperature of 37.6°C and a swollen left middle finger with decreased range of motion of the proximal interphalangeal (PIP) joint. The remainder of the examination was negative.

Laboratory evaluation included a hematocrit of 30% and a white blood cell count of 16,000/cu mm with 2% bands, 54% segmented neutrophils, 34% lymphocytes, 9% monocytes, and 1% eosinophils. The left middle PIP joint was aspirated and fluid was sent for culture and sensitivity; no Gram stain was done and blood cultures were not drawn.

The patient received intravenous tobramycin 5 mg/kg/day and intravenous cephalexin 50 mg/kg/day. The patient responded to the medications with decreased swelling and tenderness and remained afebrile throughout the hospitalization. Because of the clinical improvement, intravenous antibiotics were discontinued after three days, and the patient was discharged on cephalexin elixir 60 mg/kg/day to be given for seven days. Joint fluid cultures were negative at the time of discharge. The white blood cell count at the time of discharge was 8,900/cu mm with 30% segmented neutrophils, 49% lymphocytes, 9% monocytes and 12% eosinophils; the erythrocyte sedimentation rate was 44 mm/hr. The discharge diagnosis was cellulitis of the finger.

When the joint fluid aspirate grew *N. meningitidis* after 72 hours, the patient was readmitted for additional therapy. The physical examination revealed a temperature of 37.5°C and a cool, nontender, swollen left middle finger with only slight restriction of range of motion on flexion of the PIP joint. The erythrocyte sedimentation rate was 25 mm/hr. A radiograph of the left hand showed soft tissue swelling of the third finger but no bony abnormalities. Blood cultures were not drawn.

Because the *N. meningitidis* was sensitive to penicillin, the patient received intravenous penicillin G 200,000 units/kg/day and after six days, the patient showed significant clinical improvement with further decreased swelling. The patient received oral penicillin G 50 mg/kg/day for two additional weeks. Household contacts were given rifampin prophylactically for two days. After two weeks of oral antibiotics, there was no evidence of fever, swelling, or pain in the previously infected joint.

Discussion

Meningococcal arthritis can have four presentations: (1) type I, polyarthritis without effusion during acute meningococcemia; (2) type II, subacute arthritis with effusion involving one or more larger joints; (3) type III, acute septic arthritis without classic meningococcemia, and (4) type IV, arthritis without effusion associated with chronic meningococcemia.²⁻⁷

In type I arthritis, 92% of patients have a rash and 26% have meningitis.⁷ Blood cultures are often positive, while synovial fluid cultures are usually negative. Cerebrospinal fluid (CSF) cultures show variable results. Response to antibiotic treatment is prompt. Type II arthritis generally appears after five days, when a meningococcal infection seems to be subsiding. For this reason, the appearance of a rash or meningitis is inconsistent. Blood cultures are often negative, but synovial fluid cultures are positive in up to 50%.⁷ As in type I arthritis, CSF cultures vary in their results. Despite appropriate antibiotic therapy, the arthritis can take one to four weeks to resolve, with fluid reaccumulating despite repeated aspirations.

Type III meningococcal arthritis occurs most frequently in infants. No other meningococcal manifestations are usually present, and synovial fluid cultures are positive in 100% of the cases.⁷ Blood and CSF cultures are always negative. A rash and episodes of fever, chills, and myalgias are commonly present with the arthritis of chronic meningococcemia (type IV arthritis). Meningitis does not occur despite the chronic bacteremia, and blood cultures are positive while

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MENINGOCOCCAL ARTHRITIS/McLemore

synovial fluid and CSF cultures are negative. Types III and IV arthritis respond readily to antibiotic treatment.

Meningococcal arthritis occurring as an isolated septic arthritis is rare, and occurs most frequently in infants. Of the eight cases found in the literature, only four were in infants,^{1,5,8,9} and all of these were febrile and appeared acutely ill. The joints involved were large joints, with the knee being the most common site. Joint aspirates were positive for *N. meningitidis* in three of the four, and blood cultures, drawn in three of the four infants, were all positive.

Brawley et al⁹ have recently described acute septic arthritis caused by an antigenically distinct serogroup of *N. meningitidis*, W-135, which was first identified in 1968. This 22-month-old boy was admitted to the hospital with fever, pain in the left knee, and a history of cough and rhinorrhea. An aspirate of the joint fluid was sterile, and although Gram stain of the joint fluid revealed no organisms, the blood cultures grew *N. meningitidis*. No other signs of meningococcemia were present. Our case is unusual in comparison to previously reported cases in the absence of fever,

the benign clinical appearance, and the involvement of a small joint. Unfortunately, blood cultures were not obtained prior to antibiotic therapy—apparently because of the benign clinical presentation; therefore, we cannot exclude a silent bacteremia in this patient.

This case emphasizes that *N. meningitidis* should be considered in the differential of an acute episode of septic arthritis. Lack of fever, involvement in a small joint, and lack of a petechial rash should not exclude meningococcus from the differential diagnosis. Furthermore, this organism may not become apparent within 48 hours in bacteriologic cultures.

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Neurofibromatosis . . .

(Continued from page 148)

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Approach to the Elderly Confused Person

Part II—Evaluation of Chronic Dementia

WILLIAM B. APPLGATE, M.D. and DARENE AKINS, M.D.

Dementia, by definition, is a slow, progressive loss of multiple facets of intellectual function.¹ To use the term dementia, more than two of the following must be affected: memory, speech, cognition, visuospatial skills, and personality. Whereas delirious patients have fluctuating levels of alertness, the demented patient is usually alert (although superimposed illness may cause delirium). Dementia by definition is chronic; and, if one of the chronic degenerative brain diseases mentioned below is the cause, it is usually slowly progressive over a variable time period.

Approximately 15% of elderly patients who present themselves to a physician with progressive mental decline will have reversible causes of dementia. The two most common reversible causes of dementia are medication toxicity (as mentioned in Part I) and depression. If the patient is on any medicine that has a remote chance of affecting mental function the medicine should be stopped.² Ibuprofen, diphenylhydantoin, and digoxin are examples of medications often overlooked as causes of confusion.

Depression may mimic dementia exactly in the elderly. At times elderly persons who are depressed may not complain of sadness or dysphoric mood, but may eventually become confused. Vegetative signs (loss of appetite, sleep disturbances) and preoccupation with somatic complaints are two useful clues to depression. If depression is a possibility, a trial of a tricyclic antidepressant should be instituted. The elderly require lower doses of antidepressants, and an adequate trial requires at least three weeks with possible gentle upward dosage adjustments. The remaining medical evaluation for the demented

person is similar to that for the delirious person. We feel every elderly person with dementia should have one CAT scan evaluation of the brain. The yield of reversible lesions on the CAT scan has never been adequately studied, and may, in unselected populations, be as low as 1%. Nevertheless, occasional unsuspected tumors and subdural hematomas are found.

If dilated ventricles are found on the CAT scan, the possibility of normal pressure hydrocephalus (NPH) should be considered. As a general rule, patients with NPH almost invariably have a gait disorder in addition to the mental status changes. Since gait and mental status changes usually occur at about the same time, if mental status changes predate the gait problem by more than six months, NPH is unlikely. Further evaluation of NPH when the ventricles are dilated but the clinical picture is atypical is usually not rewarding, and if shunted such patients still have poor outcomes.³

Once reversible causes of dementia are ruled out, we are still left with 85% of the patients with chronic mental decline. There are three major types of chronic degenerative irreversible dementias: that associated with Parkinson disease, the dementia attributable to cerebrovascular disease, and senile dementia of the Alzheimer type (SDAT). Until recently, controversy has existed as to whether the dementia associated with Parkinson disease was related to the disease or due to the chance simultaneous occurrence of two common disorders. It appears that many persons who have true Parkinson disease will ultimately develop dementia (perhaps as many as 20%), and a greater proportion of patients may have some subtle cognitive impairment. On examination at autopsy, the pathologic changes found in Parkinson disease patients with dementia are very sim-

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lar to those found in patients with SDAT. This dementia does not respond to levodopa therapy.⁴

About 20% to 30% of the remaining patients will have one of the forms of dementia attributable to cerebrovascular disease. The pathologic lesions may be primarily in the brainstem or the cerebral cortex. In the former, the patient usually has the appearance of one with a subcortical dementia, with psychomotor retardation and gait abnormalities. Those with cortical defects, so called multi-infarct dementia, are often similar to those with SDAT. Both have a progressively deteriorating course, but the patient with cerebrovascular disease is more likely to have a stepwise deterioration, a past history of one or more known cerebrovascular accidents, and signs on physical examination consistent with previous strokes.⁵ Hypertension and arrhythmias that could produce emboli should be considered as possible underlying causes if a patient is suspected of having vascular dementia.

The largest group of demented persons consists of those who have SDAT. Although this was formerly thought to occur only in younger persons (under 65) who developed dementia, it is now known that most cases of either presenile or of senile dementia who do not fit in one of the categories previously described have similar degenerative changes at autopsy. Specifically, they have neurofibrillary tangles, senile plaques, and granovacuolar degeneration on microscopic examination of the cortex. The patients with SDAT are usually alert and fairly cheerful. They typically deny the degree of mental impairment, and usually maintain good motor function until late in

the course of the disorder. Though the brain usually shows some atrophy on CAT scan, it can be normal in size. Recent investigation has established that patients with SDAT have a somewhat selective loss of cholinergic neurons.

There is no specific treatment for the irreversible forms of dementia. Most patients deteriorate and die within three to five years, although some survive for as many as 20 years. None of the proposed treatments for SDAT, including lecithin, choline, physostigmine, or naloxone, have yet been shown to have sufficient benefit to warrant their use. Dihydroergocornine may be of value in some persons with early irreversible dementia, but should be given in doses of 6 gm/day. If depression coexists with dementia, antidepressants will often help cognitive function improve somewhat. Perhaps the physician's most important role is in counseling the families and dealing with the frequent problems that arise. Physicians and patients needing more information on the counseling or management of chronically confused patients are referred to *The Thirty-Six Hour Day* by Mace and Robins.⁶

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CAT Scan of the Month

STEPHEN L. GAMMILL, M.D. and GALE GARDNER, M.D.

A 41-year-old white man complained of ringing in the right ear for five months. He complained of no problems with balance, hearing, or of other otologic or neurologic difficulties.

On otologic examination, the tympanic membranes appeared unremarkable bilaterally and moved normally. Audiometric studies showed normal hearing for the speech frequencies, 15 dB on the right and 13 dB on the left, with a mild symmetrical drop at 4,000 cycles on the audiogram, suggesting noise exposure. Speech discrimination scores were 100% bilaterally.

Evoked response audiometry showed an abnormal auditory wave form on the right and the stapedial reflex on the right was absent. Please examine the computerized axial tomography of the brain with contrast (Figs. 1 and 2), and see if you can arrive at the correct diagnosis.

Discussion

During the past 20 years, advances in diagnostic methods, especially computerized axial tomography, have aided in the earlier identification of acoustic neuromas. Advanced surgical techniques have provided means to remove them with less morbidity and mortality. Symptoms of an acoustic neuroma may be minimal and one should be suspected when there is a history of unilateral hearing loss, particularly when it is associated with tinnitus and problems of balance.

Cases similar to this one demonstrate that cerebellopontine angle tumors of significant size can signal their presence with nothing more than unilateral tinnitus. Hearing can be absolutely or practically normal. If patients such as these are to be treated early and effectively, we must suspect the diagnosis of acoustic neuroma in patients complaining only of minor unilateral ear symptoms such as tinnitus, or mild hearing loss.

ANSWER: A collection of contrast material was present in the right cerebellopontine angle measuring 2 cm in diameter (Fig. 2). This finding was compatible with a diagnosis of acoustic neuroma. Surgery disclosed an acoustic neuroma that measured 2 cm in diameter. It was removed entirely, and the patient has progressed satisfactorily postoperatively.



Figure 1. A computerized axial tomogram at the level of the petrous pyramids. Following the intravenous administration of contrast material, note the round collection of contrast material in the right cerebellopontine angle.

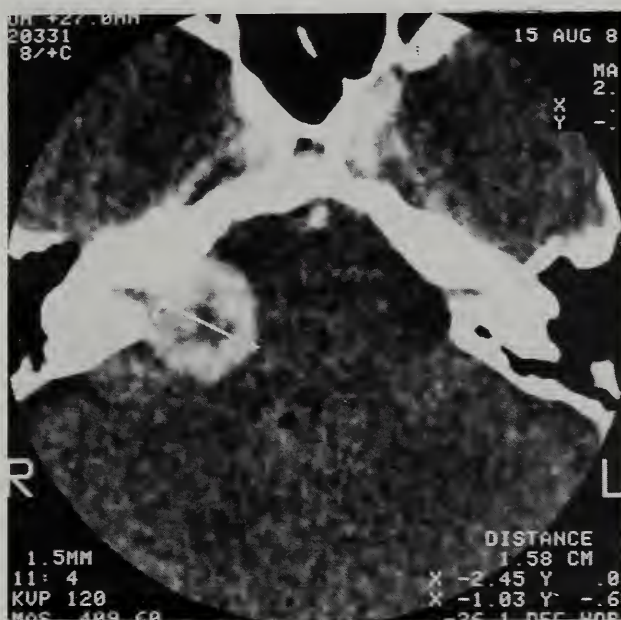


Figure 2. A magnification of the right cerebellopontine angle showing the acoustic neuroma filled with contrast material.

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Cancer Mortality in Tennessee, 1960-1980

JEFFREY S. HARRIS, M.D., M.P.H.; ANN HOGAN; and TOM SPILLMAN, B.A.

Introduction

Analysis of the leading causes of resident deaths in Tennessee from 1968 to 1980 revealed that the only two causes with increasing rates were malignant neoplasms and suicide.* During this period, mortality per 100,000 population** for malignant neoplasms at all sites rose from 143.7 to 180.9.* Consequently, age-specific and site-specific deaths and rates for malignant neoplasms were examined primarily for the time period 1968 to 1980. The period 1968 to 1980 coincides with the declining U.S. cardiovascular mortality.¹ In addition, data from 1960 to 1980 were investigated to indicate trends. A summary of the results is presented in this report.

Methods

To determine the groups with increasing rates that should be the focus of preventive programs, changes in age-specific and site-specific malignant neoplasm death rates in Tennessee were tabulated from 1968 to 1980. Linear regression was then used to project death rates to 1990 for major sites with increasing rates. Age-specific rates were also analyzed for respiratory and intrathoracic malignant neoplasms to determine whether there was any change in the characteristics of this key disease over time.

Results

For all age groups, the major specific malignant neoplasm sites and death rates in 1968 were digestive organs and peritoneum (38.5); respiratory and intrathoracic organs (30.0); genital (21.7); and breast (11.1) (Table 1). By 1980, the picture had changed so that respiratory and intrathoracic cancer had become the leading site-specific cause of death, with a mortality of 51.5,

compared to 44.5 for the second leading site, digestive organs and peritoneum. The respiratory cancer death rate rose 71.7% from 1968 to 1980. Death rates for genital cancer remained relatively stable, as did those for breast cancer during this time period.

An analysis of the component parts of the "all other sites" category revealed that the increase from 1968 in this category was due to the sum of small changes, rather than to a large increase in any one site. A cross-section of this picture, and the breakdown of "respiratory and intrathoracic" sites, which shows that most deaths in this category were from lung cancer, is shown in Table 2.

To obtain a picture of cancer deaths by age for prevention programs, age-specific rates were calculated for malignant neoplasm deaths from 1968 to 1980. For Tennessee residents whose age at death was under 25 years, mortality for all sites was relatively stable around a mean of 5.9 during the period examined. The rate for leukemia, the leading site-specific cause for this age group, declined from 2.6 in 1968 to 1.9 in 1980. The rates for all other specific sites remained low and relatively unchanged (Fig. 1).

For ages 25-34 years, overall rates declined from 21.3 in 1968 to a low of 14.2 in 1978. Female genital cancer mortality, the leading cause of death for this group, declined (Fig. 2). Lymphatic, leukemic, and digestive cancers were leading causes of site-specific deaths for ages 25-34 years during this period.

For ages 35-44 years, mortality for all sites fell irregularly from 63.7 in 1968 to 50.0 in 1980. Female genital cancer rates experienced a decline, from 19.1 to 10.2 (Fig. 3). Respiratory, digestive, and breast cancer were the three other leading causes of malignant neoplasm deaths in this age group.

At ages 45-64 years, the picture changed. The overall death rate for malignant neoplasms rose from 285.4 in 1968 to 321.3 in 1980. As Fig. 4

From the Tennessee Department of Health and Environment, Nashville.

*Unpublished statistics, Tennessee Department of Health and Environment.

**Rates are per 100,000 population throughout this report.

TABLE 1

NUMBER OF DEATHS FROM MALIGNANT NEOPLASMS AND RATES PER 100,000 POPULATION, TENNESSEE, 1968-1980

Site of Malignant Neoplasm	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all sites													
Number	5,713	5,737	5,984	6,089	6,266	6,501	6,718	6,869	7,198	7,507	7,492	7,792	8,304
Rate	143.7	144.0	152.5	152.6	155.4	158.8	162.7	164.0	170.8	174.6	172.0	177.9	180.9
Digestive organs and peritoneum													
Number	1,530	1,540	1,560	1,643	1,562	1,626	1,630	1,717	1,785	1,845	1,763	1,925	2,041
Rate	38.5	38.6	39.8	41.2	38.7	39.7	39.5	41.0	42.4	42.9	40.5	43.9	44.5
Respiratory and intrathoracic organs													
Number	1,193	1,190	1,346	1,345	1,458	1,562	1,689	1,674	1,893	2,038	2,077	2,204	2,363
Rate	30.0	29.9	34.3	33.7	36.2	38.1	40.9	40.0	44.9	47.4	47.7	50.3	51.5
Genital organs													
Number	864	819	833	836	855	866	882	865	852	922	872	912	1,006
Rate	21.7	20.6	21.2	21.0	21.2	21.1	21.4	20.7	20.2	21.4	20.0	20.8	21.9
Breast													
Number	442	498	479	523	541	529	582	556	563	580	602	575	570
Rate	11.1	12.5	12.2	13.1	13.4	12.9	14.1	13.3	13.4	13.5	13.8	13.1	12.4
All other sites													
Number	1,684	1,690	1,766	1,742	1,850	1,918	1,935	2,057	2,105	2,122	2,178	2,176	2,324
Rate	42.4	42.4	45.0	43.7	45.9	46.8	46.9	49.1	50.0	49.4	50.0	49.7	50.6

shows, this increase was due mainly to the increase in rates for respiratory and intrathoracic cancer, from 79.8 in 1968 to 120.9 in 1980, an increase of 51.5%.

A similar experience was noted for the age group 65-74 years. The death rate for all sites rose from 677.1 to 794.4, while respiratory cancer rates rose from 147.4 to 245.5 from 1968 to 1980 (Fig. 5), or an increase of 66.6%.

For ages 75 years and older, the mortality for all sites increased from 1,004.1 to 1,216.6. Increasing rates occurred in this age group for

digestive cancer (350.2 to 378.3), male genital cancer (306.0 to 367.5), and respiratory and intrathoracic cancer (112.8 to 217.4) (Fig. 6). The mortality for respiratory malignant neoplasms in this age group increased 92.7% from 1968 to 1980.

While mortality from digestive cancer increased slightly from 1968 to 1980, the projected rate to 1990 indicates only a small rise. However, projections to 1990 based on 1968 to 1980 death rates for respiratory cancer indicate the rate rising from 51.5 in 1980 to 85.1 in 1990 if current

TABLE 2

NUMBER AND RATE PER 100,000 POPULATION OF RESIDENT DEATHS FROM MALIGNANT NEOPLASMS BY SITE, TENNESSEE, 1980

Site of Malignant Neoplasms and ICD-9* Code	No. of Deaths	Percent of Deaths	Rate per 100,000 Population
Respiratory and intrathoracic organs (160-165)	2,363	28.5	51.5
Nasal cavities, middle ear, and accessory sinuses (160)	11	0.1	0.2
Larynx (161)	71	0.9	1.5
Trachea, bronchus and lung (162)	2,263	27.3	49.3
Pleura (163)	4	<0.05	0.1
Thymus, heart and mediastinum (164)	14	0.2	0.3
Other and ill-defined (165)	—	—	—
Digestive organs and peritoneum (150-159)	2,041	24.6	44.5
Genitourinary organs (179-189)	1,348	16.2	29.4
Lymphatic and hematopoietic tissue (200-208)	790	9.5	17.2
Bone, connective tissue, skin and breast (170-175)	757	9.1	16.5
Lip, oral cavity, and pharynx (140-149)	164	2.0	3.6
Other and unspecified sites (190-199)	841	10.1	18.3
Total	8,304	100.0	180.9

*International Classification of Diseases, 9th Revision.

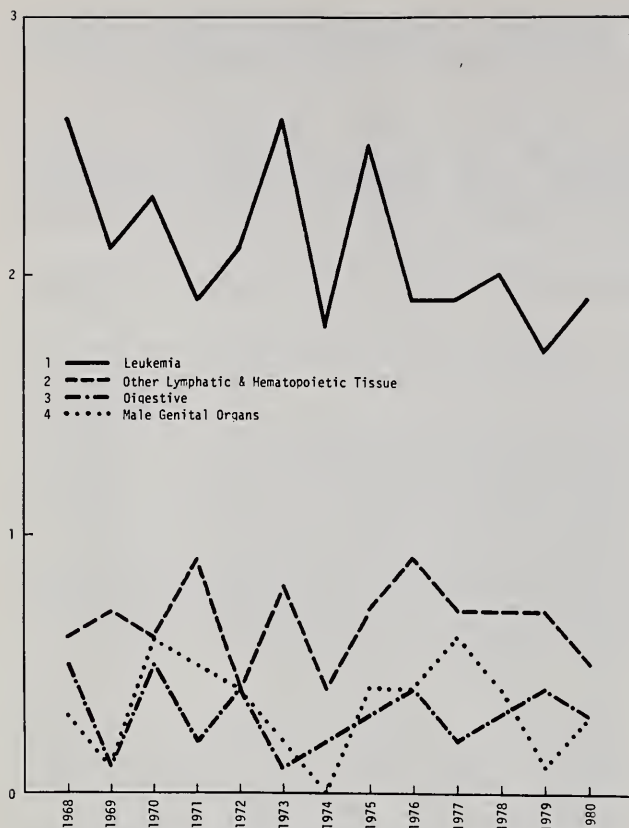


Figure 1. Rates per 100,000 population of leading causes of cancer deaths by site for persons aged less than 25 years, Tennessee, 1968-1980.

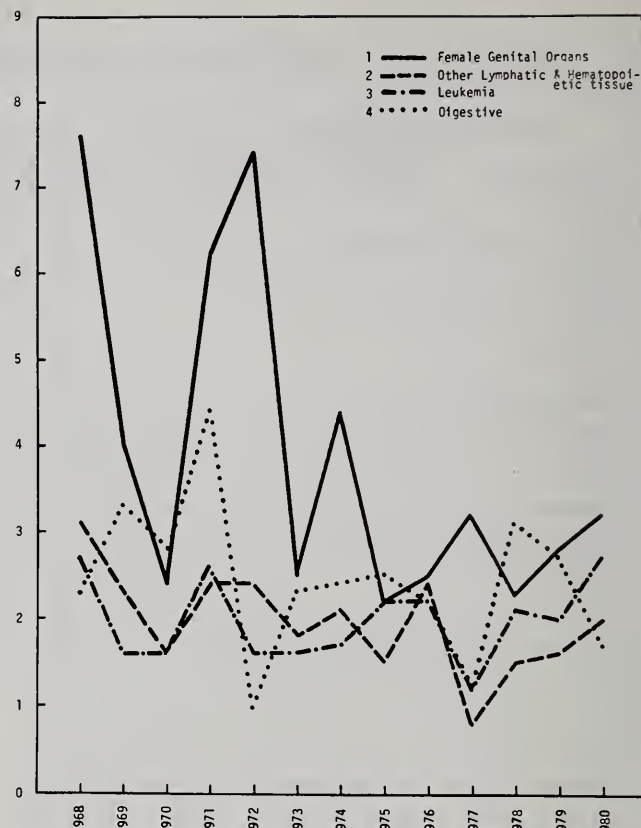


Figure 2. Rates per 100,000 population of leading causes of cancer deaths by site for persons aged 25-34 years, Tennessee, 1968-1980.

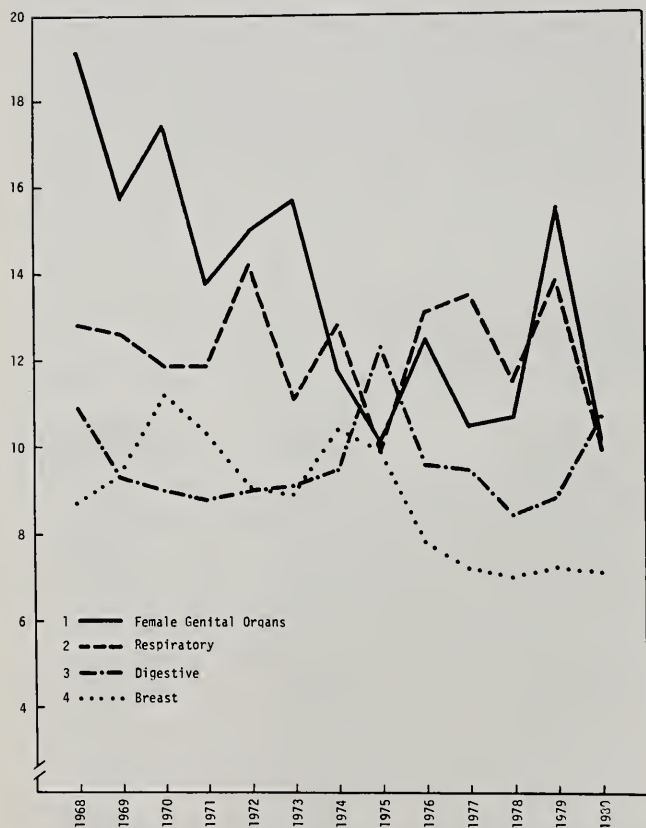


Figure 3. Rates per 100,000 population of leading causes of cancer deaths by site for persons aged 35-44 years, Tennessee, 1968-1980.

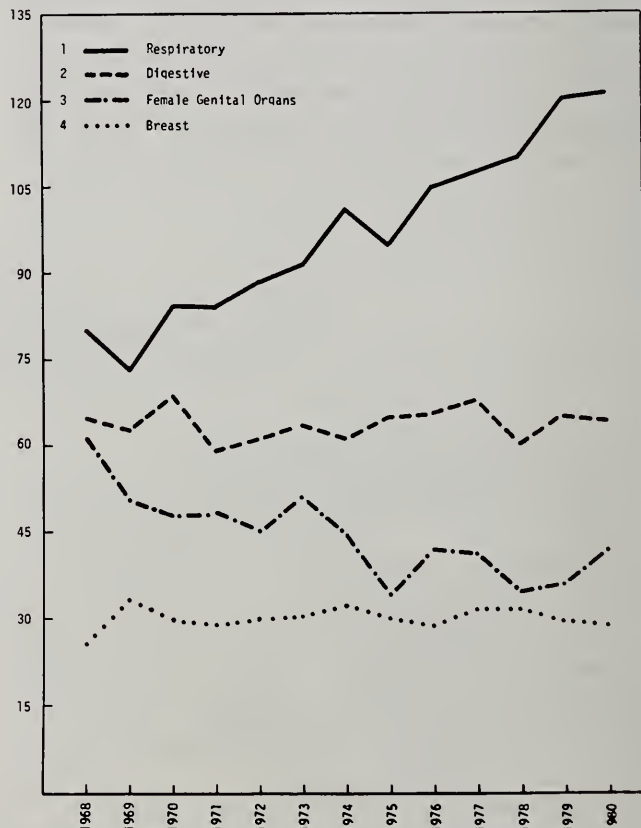


Figure 4. Rates per 100,000 population of leading causes of cancer deaths by site for persons aged 45-64 years, Tennessee, 1968-1980.

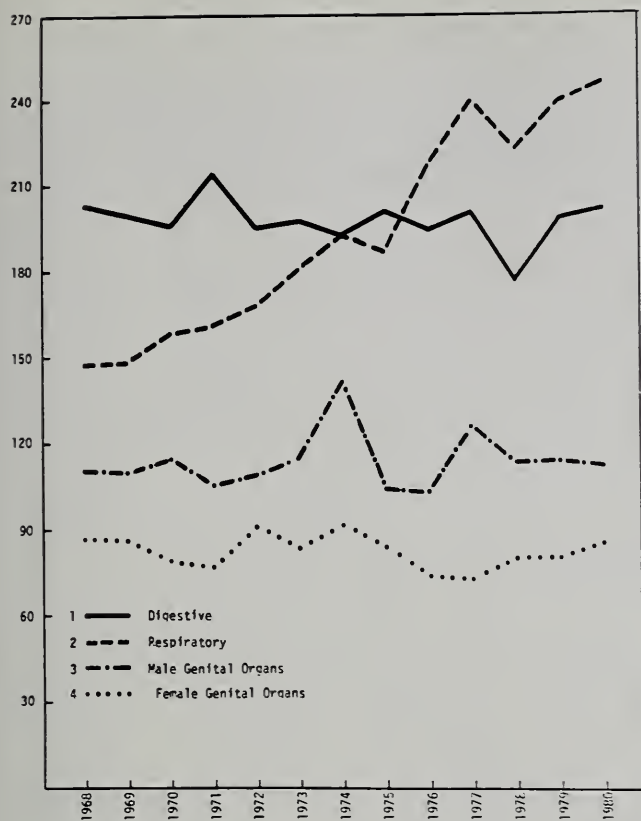


Figure 5. Rates per 100,000 population of leading causes of cancer deaths by site for persons aged 65-74 years, Tennessee, 1968-1980.

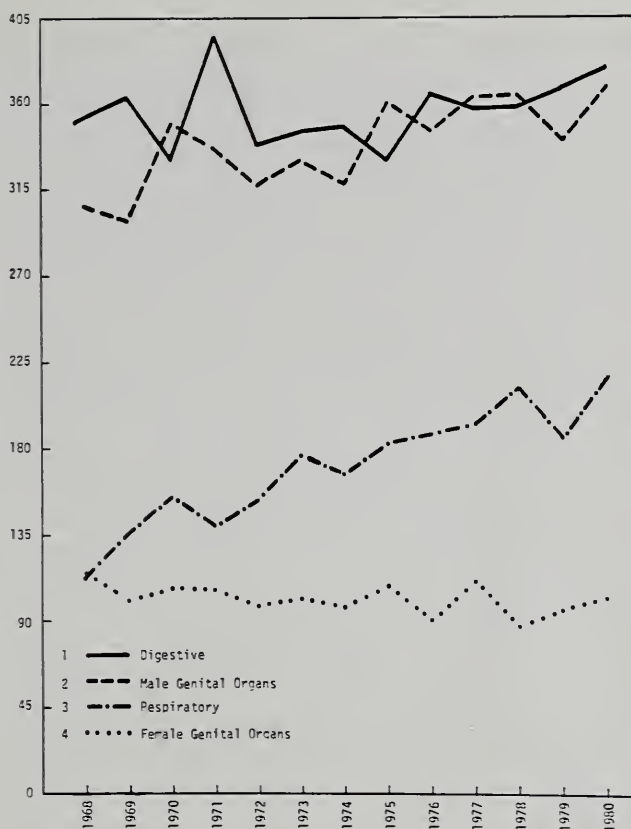


Figure 6. Rates per 100,000 population of leading causes of cancer deaths by site for persons aged 75 years and over, Tennessee, 1968-1980.

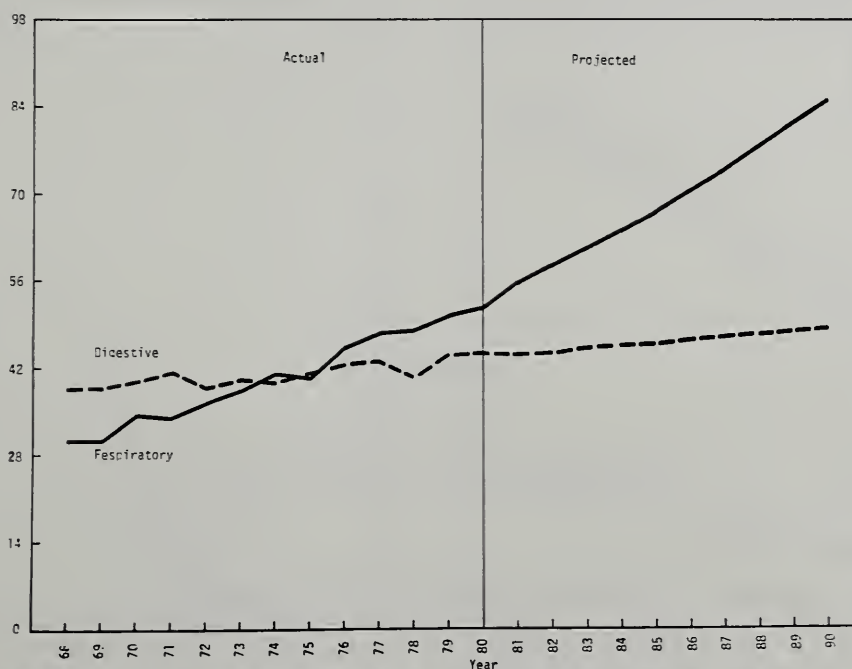


Figure 7. Actual and projected death rates per 100,000 population for respiratory cancer and digestive cancer, Tennessee, 1968-1980.

trends continue (Fig. 7). Since over half of malignant neoplasm deaths in 1980 occurred in respiratory sites, cancer could possibly be the leading cause of death in Tennessee by the year 2000 if no new interventions are mounted.

Digestive cancer rates increased sharply with age (Fig. 8). As the proportion of the population in older age groups increases the numbers of deaths from digestive cancer will also rise.

Conversely, mortality from respiratory and intrathoracic cancer has increased for all age groups, with a steeper rate of increase for men in Tennessee and minimal race differences (Fig. 9). Nationally the rate of increase is steeper for women and for nonwhites.² The age-specific death rates for respiratory cancer in 1960, 1970, and 1980 indicate an increase for each age group in each decade, particularly after age 34 years (Fig. 10).

One other point deserves attention. The mortality from male genital cancer increased from 1968 to 1980. This increase was greater with advancing age. The data for 1980 indicate the increase was most sharp after age 54 (Fig. 11).

Discussion

Contrary to opinions expressed in the popular press, there is not a "cancer epidemic" for all sites. There have been some increases in digestive cancer and male genital cancer death rates, due in part to aging of the population. The much

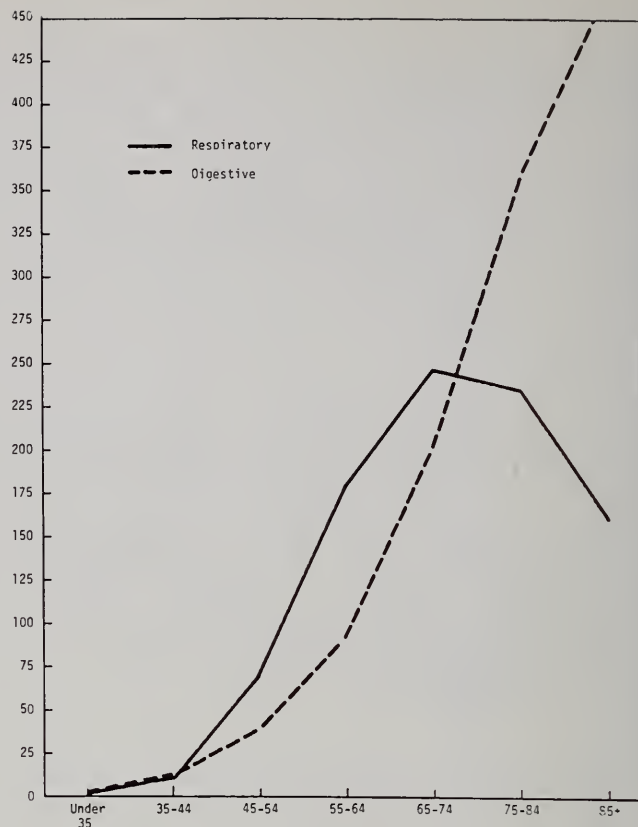


Figure 8. Death rates per 100,000 population of respiratory and digestive cancer by age group, Tennessee, 1980.

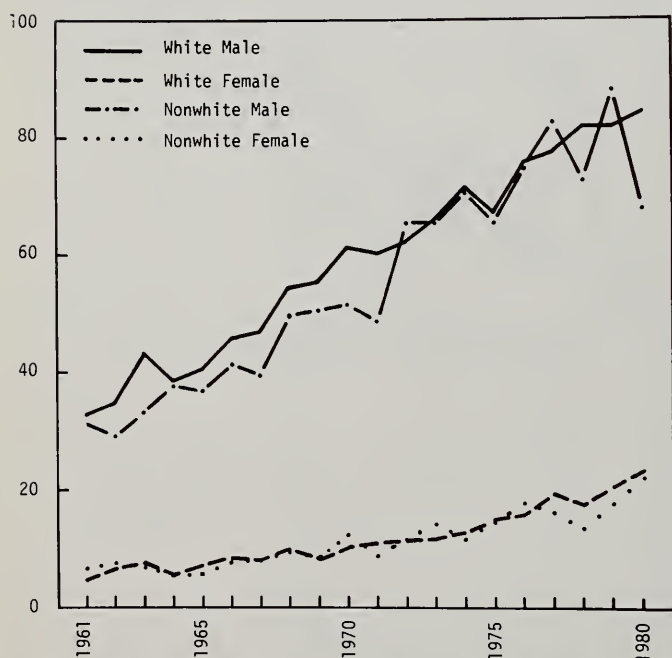


Figure 9. Rates per 100,000 population of deaths from malignant neoplasms of respiratory and intrathoracic organs according to race and sex, Tennessee, 1961-1980.

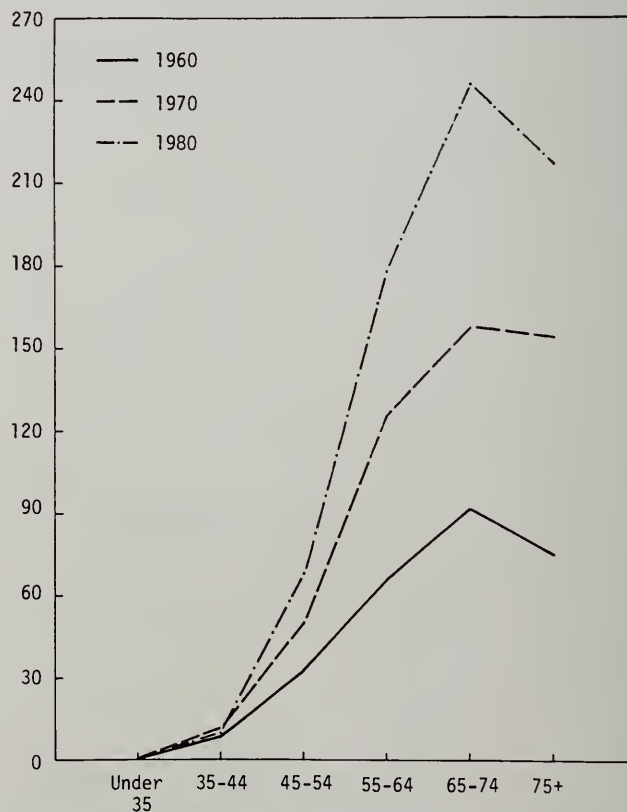


Figure 10. Death rates per 100,000 population of respiratory cancer by age group, Tennessee, 1960, 1970, and 1980.

steeper increase for male, as opposed to female, genital cancer versus age at death strongly suggests increased emphasis in patient education and public campaigns for male screening, as has been done for Pap smears and pelvic examinations in women.

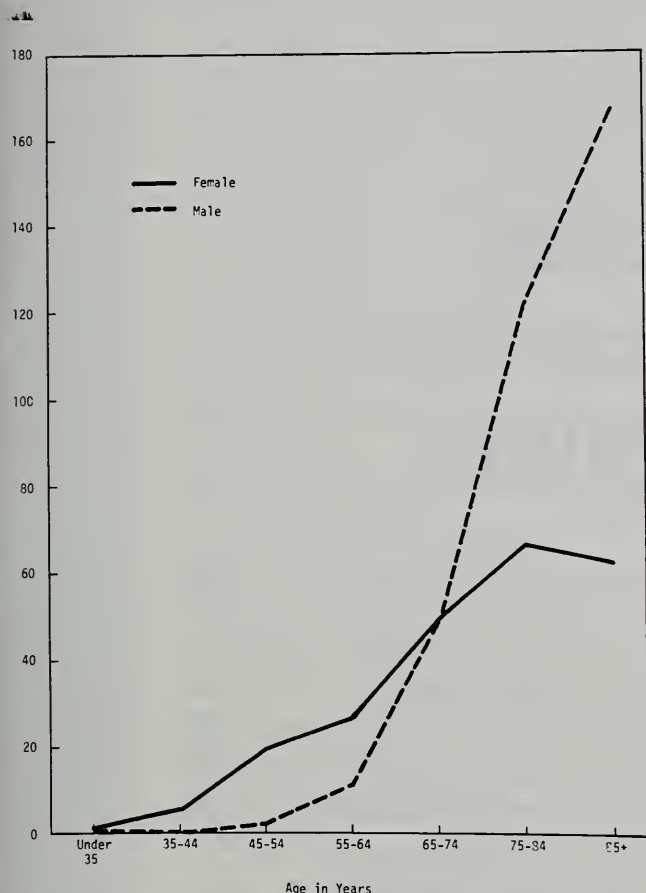


Figure 11. Death rates per 100,000 population of genital cancer by sex, Tennessee, 1980.

The major source of the dramatic increase in cancer death rates in Tennessee is respiratory and intrathoracic malignant neoplasms, which increase with age in all races and both sexes. Doll and Peto, in a special study commissioned by the National Cancer Institute,³ estimated that 85% to 95% of respiratory cancer deaths were due to tobacco smoking. There is essentially no debate on the evidence at this point in the medical community. Unless health care professionals and community leaders at all levels increase their efforts in patient counseling and public education, thereby changing public opinion about this serious problem, and encourage economic disincentives to tobacco use, cancer could become the leading cause of death in Tennessee by the year 2000 if current trends continue with no major interventions. Lung cancer could become the leading cause of death in women.

The costs to society from tobacco-related influenza and pneumonia, heart disease, chronic obstructive pulmonary disease, and adverse reproductive outcomes as well as lung cancer are staggering in the aggregate. A concerted public and private effort is needed to reverse the communicable behavior of tobacco use and to control the disease epidemic it has caused.

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MISSING

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The UAB Comprehensive Cancer Center was selected in 1973 as one of the first 11 comprehensive cancer centers funded by the National Cancer Institute. Today, the center is staffed by more than 135 member physicians and devotes more than \$21 million annually to treatment and research of cancer.

The work of the UAB Comprehensive Cancer Center is carried on through five clinical divisions — Hematology/Oncology, Gynecologic Oncology, Radiation Oncology, Pediatric Hematology/Oncology, and Surgical Oncology. Special services offered by the center include:

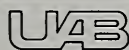
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MARCH, 1984

editorials

Coke and ACL and You

The other day three Vanderbilt students were sentenced to from three to four years in the county workhouse for "conspiring to sell and for selling cocaine" to their fellow students. The sentencing judge ignored plea-bargaining deals and refused "educational suspension," so that two of the young men will have to serve two years in the workhouse and the other 90 days before they

are eligible for parole. The attorney for one of the men said he was "surprised" (he meant he was astonished) at the judge's decision. So am I.

I heard a figure given that of a very large sample of the college-age population, two-thirds of the women had tried marijuana and one-third had tried cocaine. Whether or not those figures are high, there is no question that the use of cocaine is rampant, and has even become almost socially acceptable as an enjoyable, and if done properly, nearly harmless habit. Because cocaine is not physically addicting, abstinence does not plunge the user into the horror world of withdrawal, and he does not therefore appear debilitated or show the stigmata of the heroin addict. Also, unlike the opium drugs, cocaine is not enervating. In the words of one addict, "I felt I was ten feet tall, and could do anything."

An article in the *Wall Street Journal* (WSJ) some time back describing the problem of cocaine use in business and industry gave me cold chills as it spoke of the activities of drug-stimulated brokers on the floor of the New York Stock Exchange and in the banking houses that control our money and money policies. Whereas cocaine may have sharpened the wits of Sherlock Holmes to the point of prescience, allowing his brilliant deductions, in real life it destroys its user's judgment and morals, frequently leading to gross miscalculations of risks and unconcern for their consequences. Further, the addict has no insight into this drug effect, believing when he is "high" that he is an omniscient, omnipotent monarch, instead of the cipher he feels himself to be without his crutch.

That is the addiction of cocaine. It is psychological dependency. Inferiority complexes vanish in a trice. In the words of a teenage addict quoted in an article in *Medical Economics* (Dec. 12, 1983), "Suddenly I was in a magical place where everything was bright and exciting. Anything was possible, the world was wonderful, and I was invulnerable. There was nothing I couldn't do." While the consequences of such a psychologic boost at a party might be insignificant, and an entertainer might simply enjoy from it an inflated opinion of his offerings, the lack of caution such a flight from reality would engender on the floor of the stock exchange, in a bank's trust department, in the cockpit of an airplane, or behind the wheel of a bus, all instances cited by the *WSJ*, could be devastating.

Cocaine has the added psychological effect on the young of retarding social maturation, making

its distribution among that segment of our population particularly heinous. Its use has now filtered down into our own grade schools, I'm told. Though this is a situation we in the Bible Belt like to think is confined to such realms of Satan as California, Miami, and New York City, the fact is that Tennessee, of all places (to us), is one of the centers of the cocaine trade.

Like the defendant's attorney, I am astonished at the judge's ruling. Our society has become so considerate of the inferred American civil liberties (ACL) of our criminals and so intent upon rehabilitation of these criminals, that we (our society) give scant attention either to the crime itself and its likelihood of repetition, or to the injured parties, past or future, whose ACL we totally ignore.

Recidivism among drug dealers must be virtually total, since I daresay all of them are in the business to support either their avarice or their own addiction, or both, and one of the most devastating effects of habituating drugs is the deadening of conscience. By their own admission, cocaine addicts will without compunction lie, steal, or even kill to maintain their crutch, and they tend to victimize most those who love and trust them.

The only quarrel I have with the judge's decision is that it was too lenient. Our drug problem is a direct consequence of the drug traffic, and not the other way around. Addiction is acquired, and is deliberately engendered and fostered to satisfy the cupidity of the unscrupulous entrepreneurs. Although some of them have recently been brought to justice, those few have been dealt with far too gently, which encourages the others to continue. Such individuals should spend their remaining years in prison, without possibility of parole. As for the network of petty pushers, among whom I suppose the student "conspirators" are numbered, they should all be required to serve out their full sentence.

In keeping with society's present pandering to the poor, downtrodden, disadvantaged souls (such as those students in a private university featured in this editorial) whom society has forced to turn to crime (society is the *real* culprit, n'est-ce pas?), I am certain we could never ever consider anything so "inhumane," but reinstitution of the stocks and public whipping post would doubtless have a salutary effect. I know contemporary wisdom has it that such things brutalize society—but of course the illicit drug traffic and its effects—not to mention the violence we are daily subject-

ed to through television, the movies, and the news media—do not.

At least one judge has given some thought to the civil rights of the law abiding citizens, which are daily violated by crime. It isn't much, but it's a start.

J.B.T.

Dreams of Glory

The late Walt Disney had a dream that some 25 million planning hours later culminated in Epcot Center at Walt Disney World in Florida. The theme of Futureworld, which makes up one part of the center, is, "If we can dream it, we can do it." It is a theme that places no limits on man's capabilities, and as one proceeds through Futureworld, one finds that an increasingly plausible notion, unless he happens to note what is perhaps the only discord injected into the whole presentation, which is a short introductory scene depicting life in the 1950s as viewed from the 1930s—"Futureworld" a la the 1938 World Fair's "World of Tomorrow." I remember it well. Robots would do all the menial tasks, and us folks would simply lie back and enjoy it. Those were the dreams of glory of a world arising from the Great Depression.

What happened? Well, World War II happened, for one thing, followed by the Korean War and the Vietnam War in quick succession, as the cold war dragged on apace. Arms and the space race absorbed the biggest part of our technologic energies, and the hippie generation rejected it all. We dreamed a dream, and we blew it, *si*? Well, not precisely. We dreamed a dream, and it was blown by Hitler, then Stalin, and a host of others you could name, both foreign and domestic. Their dreams, you see, were different dreams. Their dreams had different goals—or even sometimes no goals at all.

Whereas the statement, "if we can dream it, we can do it," seems straightforward enough, we find it complicated by one small definition: who is "we"? If "we" were everyone in the world, fulfillment of our dreams would be far less constricted than they actually are. Each of us has dreams, or if not dreams, at least notions of how we would like things to be. Possibilities for fulfillment, though, are directly proportional to the numbers sharing the dream, and inversely to the number of contrary minded.

We—speaking collectively as Americans—have been blessed in being able to fulfill a high percentage of our dreams. Speaking individually, the

percentage is often lower, and in too many instances it approaches zero. As the world shrinks through better communication and advanced weaponry, both individuals and nations that have been on the low end dream of being on the high end, and unfortunately also dream too often of trading places instead of elevating everyone.

The whole world dreams of peace, but each nation dreams of peace on its own terms. More than that, it is usually the government, and not the nation, that prescribes the terms. Instead of dreaming productively, the dreams become dreams of destruction, of pulling down instead of building up, and such dreams tend toward self-fulfillment. To quote the scriptures, there is a way that seems right to man, the end whereof is death. It is easy to tear down; it takes work to build.

For the statement at hand, then, we have to separate technologic and philosophic considerations. Technologically, man's history has been that if he could dream it, he could indeed do it—maybe not immediately, but eventually. Along philosophic lines, though, man has traveled a much rockier road. His spirituality has become drowned in all sorts of “-isms,” not the least of which is hedonism, which quench the spirit and separate man from God, and therefore from the greater good.

At Babel man set out to construct a tower to reach heaven. He was well on his way to accomplishing his goal when communications broke down and every man went his own separate way, with his own special interests, forgetting both the project and God. There has never been any indication that things have changed at all since then.

Man's technologic reach exceeds his grasp not through failure of intellect, but through spiritual poverty. God's “Futureworld” is outlined in the Bible's book of Revelation, but, unlike Epcot, it is not very popular, having received bad press. If man would dream God's dream, *then* he could do it, but so far man has devoted only cursory attention to his spiritual reach.

J.B.T.



Fred E. Hufstedler, age 68. Died January 10, 1984. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY

John Carl McAmis, M.D., Maryville

CARTER COUNTY MEDICAL SOCIETY

Royce E. Blackman, Jr., M.D., Butler

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

*Steven R. Anderson, M.D., Chattanooga
Frances H. Barnett, M.D., Whitwell
Channappa Chandra, M.D., Hixson
Brian J. Corden, M.D., Chattanooga
Mary A. Duffy, M.D., Chattanooga
Charles P. Hughes, M.D., Chattanooga
M. Owens Nelson, M.D., Chattanooga*

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

*Robert M. Nollner, M.D., Bolivar
Lucius F. Wright, M.D., Jackson*

CUMBERLAND COUNTY MEDICAL SOCIETY

Robert D. Mayfield, M.D., Crossville

GREENE COUNTY MEDICAL SOCIETY

Beverly D. Holt, M.D., Greeneville

KNOXVILLE ACADEMY OF MEDICINE

*Robert J. Capps, M.D., Knoxville
Richard W. Greene, M.D., Knoxville
Gary W. Lethco, M.D., Knoxville
Thomas R. Littlefield, M.D., Knoxville
Gerald L. Mancebo, M.D., Knoxville
Lionel D. McCollum, M.D., Knoxville
John W. Neblett, M.D., Knoxville*

MAURY COUNTY MEDICAL SOCIETY

Claudia Sainz Andrews, M.D., Columbia

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

*Elkhoa Abed, M.D., Memphis
Thomas H. Crenshaw, M.D., Memphis
James R. Galyean, III, M.D., Memphis
Santash K. Ganguli, M.D., Memphis
Oliver F. Hardy, M.D., Memphis
William H. Knight, M.D., Memphis
Gerald H. Lieberman, M.D., Memphis
Randall J. Moskovitz, M.D., Memphis
James G. Porterfield, M.D., Memphis
Edward T. Robbins, M.D., Memphis
Joseph K. Samaha, M.D., Memphis
Douglas R. Shanklin, M.D., Memphis
Ronnie N. Warner, M.D., Memphis*

(Student Members)

James M. Andrews, Memphis
Nicolas B. Appleton, Memphis
Charles K. Cartwright, Memphis
James C. Hall, Memphis
Ronald K. Jaekle, Memphis
Drew A. Kreegel, Memphis
Bryan R. Kurtz, Memphis
Donald T. McKnight, Jr., Memphis
William H. Moore, Jr., Memphis
Hoa Nguyen, Memphis
Kenneth R. O'Kelley, Bartlett
Sherry L. Roach, Englewood
Virginia N. Rodgers, Memphis
William C. Stanbery, II, Cleveland
Paul H. Wakefield, Red Boiling Springs

**ROANE-ANDERSON COUNTY
MEDICAL SOCIETY**

William H. Martin, M.D., Oak Ridge

**SULLIVAN-JOHNSON COUNTY
MEDICAL SOCIETY**

Dennis M. Aguirre, M.D., Bristol
Joseph R. Armstrong, M.D., Bristol
Steven R. Hanor, M.D., Bristol
Sharon E. Lail, M.D., Kingsport
E. R. Neely, M.D., Kingsport

SUMNER COUNTY MEDICAL SOCIETY

Rajah Karalabulasingam, M.D., Portland

TMA Members Receive AMA Physician's Recognition Award

Nine TMA members qualified for the AMA Physician's Recognition Award during December 1983.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA

Jack Benhayon, M.D., Knoxville
Elaine M. Bunick, M.D., Oak Ridge
Donald R. Campbell, M.D., Chattanooga
John C. Gaw, M.D., McMinnville
David L. Hudson, M.D., Murfreesboro
Stephen M. Kimbrough, M.D., Johnson City
Frank H. Lowry, M.D., Madisonville
W. Charles A. Sternbergh, Jr., M.D.,
Chattanooga
Melborne A. Williams, M.D., Nashville

personal news

Robert Broady, M.D., Sevierville, and his wife were recently honored by the Sevierville Lions Club as Citizens of the Year, recognizing their work in the county during 50 years of medical service.

Tim Fabian, M.D., Memphis, was awarded the Silver Quill Award as "Communicator of the Year" by the Memphis Chapter, Public Relations Society of America.

Burton M. Rudolph, M.D., Knoxville, has taken office as president of the American Association for Clinical Immunology and Allergy.

Robert C. Russell, M.D., has been elected chief of staff of University Hospital in Knoxville. Other officers appointed were *Richard L. Whittaker, M.D.*, chief of staff elect; and *William S. Reid, M.D.*, secretary.

Thomas A. Turner, M.D., Murfreesboro, has been appointed vice regent for the state of Tennessee of the International College of Surgeons, United States Section.

national news

From the AMA's Office in Washington, D.C.

More Baby Doe

Federal regulations were issued in January, but the "Baby Doe" controversy shows no signs of quieting.

The new regulations offer changes of style, not substance. Although the new rule says that hospital review boards can act as mediators in disputes over care, it retains the government's right of final say. The Department of Health and Human Services is still free to override the opinions of parents, physicians, hospital administrators, and even the review board.

Posted notices, although smaller and more discreet in location, will still publicize the toll-free, 24-hour HHS phone number. However, cases of suspected neglect may be reported to the hospital review board or state child protection agency instead of Washington, D.C. If federal HHS offices decide that neglect did occur, the hospital stands to lose all federal funds, including Medicare and Medicaid.

The rule's start-up date, set for Feb. 11, should be deferred, say a coalition of medical groups. According to a letter sent to HHS Secretary Margaret Heckler by the American Medical Association, the American College of Obstetricians and Gynecologists, the American Academy of Family Physicians, and the Association of American Medical Colleges, a deferral will give the

courts time to decide whether Section 504 of the Federal Rehabilitation Act applies, as HHS claims it does.

The extra time would also give local ethical review boards a chance to offer advice about these critical care decisions, according to the coalition. Many of these committees are just now being established and could operate more smoothly without HHS breathing down their necks, they say.

Furthermore, a deferral would not affect the claimed authority of the government in the "Baby Doe" arena, the medical groups told Heckler. It is unlikely that a deferral would interfere with any life-saving measures, they added.

Healthier America, but There's a Cost

Americans are healthier than ever, according to the annual report, "Health United States," released by the Department of Health and Human Services in January. But the price tag for health care services also continues to climb, outstripping inflation, the report shows.

Health Status

- After a temporary decline after the 1980 flu epidemic, American life expectancy has resumed its upward trend. Women born in 1982 can expect to live to age 78.2 years, up from 77.9 years in 1981. Men will live an average of 70.8 years, up from 70.3 in 1981.

- Infant mortality continues to decline, reaching 11.2 deaths per 1,000 live births, down from 11.7 deaths in 1981. But the mortality rate for black infants remains almost twice as high as for whites.

- Fertility climbed in the late 1970s, reversing the plummet of birth rates seen in the early part of the decade. Yet, it is far from the proportions of the "baby boom" of the 1950s. There were 15.9 births per 1,000 population in 1980, compared to 25.0 births per 1,000 population in 1955. The average number of births expected by women 18 to 34 years of age has decreased during the past decade from 2.6 in 1971 to 2.2 in 1980.

- Cardiovascular disease and cerebrovascular disease claimed fewer lives in 1982 than in 1981, from 196 to 190 deaths per 100,000 population and 38 to 36 deaths per 100,000 population, respectively. Malignant neoplasms have increased, however, from 131 to 133 deaths per 100,000 population between 1981 and 1982.

Health Care Expenditures

- In 1982, health care expenditures in the United States totaled \$322.4 billion, an average of \$1,365 per person, and comprised 10.5% of the gross national product. By comparison, 1981 health care expenditures totaled \$286.6 billion, an average of \$1,225 per person, and comprised 9.8% of the gross national product.

- Medical care prices continued to increase above and beyond the inflation rate, the report said. Between 1981 and 1982, medical care prices grew 11.6%, compared to a 6.1% increase in the Consumer Price Index. In the prior year, medical care prices grew 10.8%, compared to a 10% increase in the overall index.

- Hospital care expenditures continue to claim the

largest share of the health care dollar—42% of all expenditures in 1982. Physician services, dentist services and nursing home care accounted for 19%, 6% and 9%, respectively.

Utilization of Health Care Resources

- Cardiac catheterization among middle-aged and elderly men continues to increase rapidly. Between 1979 and 1981, cardiac catheterization increased 97% for men over age 65 and 34% for men aged 45 to 64. Coronary bypass surgery increased 27% for younger men and 89% for men over age 65.

- CAT scans among hospitalized persons doubled between 1979 and 1981, from 0.8 to 1.8 per 1,000 persons in all age and sex groups.

- Diagnostic ultrasound among hospitalized women increased 91% between 1979 and 1981. The increase was particularly dramatic—126%—in women over age 65.

- Lens extraction among the elderly increased 30% between 1979 and 1981. Furthermore, 57% of these procedures were accompanied by the insertion of a prosthetic lens in 1981, compared with 36% in 1979.

Health Care Resources

- The proportion of women among graduates of health professions' schools has increased steadily since the 1960s. The proportion of female medical school graduates jumped from 5% in 1955 to 23% in 1980.

- Compared to voluntary hospitals, both urban and rural public hospitals had higher newborn death rates and a greater incidence of low-birth-weight infants.

- In metropolitan areas, public hospitals treated more minority patients than voluntary hospitals (20% vs 11%), more Medicaid patients (15% vs 8%) and more uninsured patients (12% vs 6%).

Hospitals Win/Lose Under Final DRGs

Hospitals got several things they asked for in the final regulations for Medicare's new fixed-price payment system, but they'll have to live with a \$24-million reduction in reimbursement next year.

The final regulations for the Diagnosis Related Groups (DRGs) published in the *Federal Register* Jan. 3 offer several important changes in the regulations in effect since Oct. 1. The new rules are expected to cut Medicare payments to hospitals by more than \$100 million a year after 1986.

Hospitals generally were pleased with changes that loosen the criteria for exemptions from DRGs for certain types of hospitals, that permit hospitals to charge Medicare patients for requested services the hospital and physician have found unnecessary, and modify the calculation of payments for unusually lengthy or costly cases. Some physician groups, including the AMA, commended HCFA for modifications relating to indirect medical education costs, but they reiterated their opposition to the "radical restructuring" of the health care system under DRGs.

Both hospitals and physician groups are unhappy

about an OMB-instigated modification that hospital experts predict will reduce the payment per Medicare case by \$9 to \$13 and decrease total Medicare payments to hospitals by \$24 million next year. The diminished payments result from a decrease in the inflation update for DRG rates from the 11.7% published in the interim regulations to 10.9% in the final regulations.

Though critical of the precedent set by the reduction in the inflation factor, hospital officials say its initial impact is outweighed by their success in renegotiating the way DRG payments are calculated for outlier cases that exceed normal lengths of stay or are unusually costly. In effect, the change means that during the transition to a totally national DRG rate, hospitals will be paid somewhat more for the bulk of their cases but will receive less for outlier cases than under the interim regulations.

Diet/Drug Studies Reduce Heart Attack Risk

Coronary heart disease can be prevented in men at high risk by lowering blood cholesterol levels through diet and drugs, according to a government study released in January in the pages of the *Journal of the American Medical Association*.

Men receiving the anti-cholesterol drug cholestyramine experienced a total of 155 fatal and non-fatal heart attacks compared to 187 attacks experienced by men receiving a placebo, an NIH study found.

Investigators calculated that the drug produced a 24% reduction in fatal heart attacks and a 19% reduction in non-fatal heart attacks.

There were other indicators of reduced risk: persons receiving the drug experienced a 24% reduction in positive ECG, a 20% reduction in angina, and a 21% reduction in coronary bypass surgery, compared to persons receiving a placebo.

"These results have the potential to markedly reduce the large number of heart attack deaths presently experienced in this country," said C. Edward Davis, Ph.D., deputy director of the Lipid Research Clinic Program at the University of North Carolina in Chapel Hill. Coronary heart disease is responsible for more deaths in the United States than any other disease: one per minute, or more than half a million each year.

Of the 560,000 persons who die in the United States each year from heart attacks caused by atherosclerosis, an estimated 100,000 could be saved by the study's anti-cholesterol regimen, said Basil Rifkind, M.D., of the National Heart, Lung and Blood Institute in Washington, D.C.

The study was large and complex: 3,806 participants visited 13 medical centers across the United States, collectively making 193,000 clinic visits, generating over 1 million data forms, giving 341,000 blood samples, and undergoing 72,000 electrocardiograms.

Participants were men aged 35 to 59 who had blood cholesterol levels of at least 265 mg/dl, but no clinical evidence of disease. The group was divided evenly into two identical subsets: half received diet instructions (restricted to 400 mg of cholesterol per day) and a placebo

while the other half received identical diet instructions and the drug cholestyramine. The study was double-blind. Each patient was followed at least seven years; a few were followed 10 years.

When both treatment groups were on diet only, there was an average 3.5% fall in total cholesterol and a 4.0% fall in LDL cholesterol for all persons. With initiation of drug therapy, differences in cholesterol levels between the two treatment groups became apparent during the first year and maintained that gap throughout the study. Differences in disease rates between the two groups became apparent by the third years and widened for the duration of the study.

It has long been accepted that high cholesterol levels are linked to elevated incidence of heart disease. However, it had never actually been proven that cholesterol reduction causes a parallel reduction of disease. This study shows that, as a rough rule of thumb, each 1% fall in cholesterol level is associated with a 2% reduction in the rate of heart attack.

The study's findings should be extended to women and younger men with high blood cholesterol levels, the researchers said. People with more modest cholesterol elevation could also benefit by cholesterol reduction, they say.

New Anti-Smoking Gum

The Food and Drug Administration has approved a chewing gum containing nicotine to help physically dependent cigarette smokers.

Available only by prescription, the gum Nicorette does not eliminate the desire for a cigarette but can provide a short-term alternative source of nicotine. FDA officials say Nicorette is not addictive, however.

According to FDA, smokers who have a high physical dependence on nicotine are the most likely to benefit from use of the gum. Such persons typically smoke more than 15 cigarettes a day, prefer brands of cigarettes with amounts of nicotine greater than 0.9 mg each, and find the first cigarette in the morning the hardest to give up.

The gum should not be used by pregnant or nursing mothers, persons with certain heart conditions, persons with a disease that makes chewing difficult, and non-smokers, according to FDA.

Hospital Mergers Increase Costs

Hospital mergers substantially increase Medicare and Medicaid costs, and federal rules governing accounting practices employed in such transactions should be tightened, according to Congress' General Accounting Office.

Anticipated for several months, the GAO findings focus on the Hospital Corporation of America's (HCA) acquisition of 54 hospitals from INA Corp. Earlier rumors about the upcoming report had led to a decline in HCA stock, but the new report has been revised. While it does estimate that the acquisition increased overall capital costs of the hospitals by about \$55 million and questions some HCA accounting techniques, it stops short of alleging the practices were illegal.

The report was requested by Rep. Willis Gradison (R-OH) of the House Ways and Means Committee, who said the present Medicare policy rewards "those who traffic in hospitals."

Although Medicare's new diagnosis related groups reimbursement will move hospitals away from cost-based reimbursement and pay a fixed price per case, the GAO findings are still relevant since capital costs will continue to be paid on a cost basis until 1986. Gradison said he will seek hearings in the Ways and Means Health Subcommittee and may introduce "remedial" legislation.

HCA officials responded they welcomed the hearings, had done nothing improper and don't expect any deterioration in HCA's "financial position."

FTC Study Hits Ophthalmologists

Opticians can fit contact lenses as well as ophthalmologists, at a lower cost to the consumer, according to a new Federal Trade Commission report. But the report has come under fire by ophthalmologists, who fear that its widespread acceptance could harm patients who need the medical attention of a physician.

This finding, if accepted by FTC commissioners, could result in a loosening of restrictions on the business practices of opticians. An earlier but similar FTC report on eye glasses and eye examinations has become the basis for a new FTC rulemaking.

The FTC study said there is little difference in the quality of contact lens fitting performed by opticians, optometrists, and ophthalmologists. The majority of 500 contact lens wearers from 18 cities, when interviewed and examined, were found to have healthy eyes and well-fitting contacts. Only a handful of patients had serious ocular abnormalities; of these, most did not relate to contact lens wear.

There was a wide range in costs, however. The average price for lenses, including examination, ranged from \$119 to \$183 for hard lenses and from \$150 to \$234 for soft lenses. The FTC said that ophthalmologists were the most expensive, commercial optometrists were the least expensive, and opticians and noncommercial optometrists charged prices somewhere in between.

"The findings call into question claims that restrictions on contact lens fitting by non-physicians are necessary to protect the public," according to the report. Such restrictions may increase costs to consumers by limiting the choices available to them and reducing competition in the marketplace, the report adds.

Some states forbid opticians to fit lenses, while others permit opticians to fit lenses only under the supervision of an ophthalmologist or optometrist. In the remaining states, the restrictions are fuzzy; state courts have reached differing opinions.

Physicians dispute both the methodology and the conclusions of the study. Only an ophthalmologist has the medical training to handle complications or hard-to-fit patients, says the American Academy of Ophthalmology. Since the FTC questioned only persons who were wearing contacts at the time, it may have overlooked difficult cases, such as persons with unusual eye structure or pathology. An eyeglass wearer reading the report has no way of knowing if he is a problem-free

lens wearer or if he may encounter difficulties, says the physicians group.

Pacemaker Abuses Hotline

The Health Care Financing Administration, which has been accused by some congressional committees of inadequately policing rebates and other abuses in the cardiac pacemaker industry, has notified its Medicare contractors that rebates, kickbacks and other such industry practices may be subject to fines of \$25,000 or five-year prison terms.

A form letter to be sent to all the pacemaker suppliers covered by the contractor was included with the instructions. It suggests that these and other abuses can be reported on a fraud hotline maintained by the Health and Human Services Department's Office of Inspector General.

announcements

CALENDAR OF MEETINGS

NATIONAL

April 1-5	American Association of Pathologists—Radisson Hotel, St. Louis
April 1-6	American Physiological Society—St. Louis
April 2-3	Nutrition, Eating and Behavior Conference (sponsored by Georgia State Univ.)—Atlanta
April 2-4	Genetics & the Law Conference (sponsored by Amer. Society of Law and Medicine)—Westin Hotel, Boston
April 4	Association for the Care of Asthma—Hyatt Regency Embarcadero Center, San Francisco
April 6-8	Orthopedic Symposium on the Cervical Spine (sponsored by St. Luke's Episcopal Hosp. and Baylor College of Med.)—Westin Galleria Hotel, Houston
April 6-8	Society of Pediatric Radiology—Convention Center, Las Vegas
April 7-13	Navy Occupational and Environmental Health Workshop—Pavilion Tower Hotel, Virginia Beach, Va.
April 8-11	American College of Emergency Physicians Winter Symposium—Scottsdale, Ariz.
April 8-14	American Academy of Neurology—Sheraton Hotel, Boston
April 8-12	American Association of Neurological Surgeons—San Francisco Hilton
April 9-13	American Roentgen Ray Society—Hilton Hotel, Las Vegas
April 11-14	American Burn Association—San Francisco Hyatt
April 11-14	Association for Surgical Education—Hilton Head Inn, S.C.
April 25-28	American College Health Association—Hyatt Regency Peachtree Center, Atlanta
April 25-28	Virginia Society of Ophthalmology Annual Meeting—Williamsburg, Va.
April 26-29	American College of Physicians—Atlanta Hilton
April 26-29	Virginia Society of Otolaryngology—Head

- and Neck Surgery Annual Meeting—Williamsburg (Va.) Conference Center
- April 29-May 4 American Occupational Medical Association—Biltmore Hotel, Los Angeles
- April 30-May 4 Society for Pediatric Research—Hilton Hotel, San Francisco
- April 30-May 5 Ambulatory Pediatric Association—Hilton Hotel, San Francisco
- May 2-5 Christian Medical Society—Oakbrook Hyatt, Chicago
- May 2-6 American Association of Suicidology—Captain Cook, Anchorage, Alaska
- May 4-6 American College of Psychoanalysts—Ambassador Hotel, Los Angeles
- May 4-7 American Society for Clinical Investigation—Shoreham and Sheraton Washington, Washington, D.C.
- May 5-12 American Society for Head and Neck Surgery—The Breakers, Palm Beach, Fla.
- May 6-7 American Otological Society—The Breakers, Palm Beach, Fla.
- May 6-9 American Association of Plastic Surgeons—Drake Hotel, Chicago
- May 6-9 American Broncho-Esophagological Association—The Breakers, Palm Beach, Fla.
- May 6-10 Aerospace Medical Association—Town and Country Hotel, San Diego
- May 6-10 American Urological Association—Rivergate Convention Center, New Orleans
- May 6-11 American Society of Colon and Rectal Surgeons—Hyatt Regency, New Orleans
- May 7-9 American Association for Thoracic Surgery—New York Hilton
- May 8-10 American Laryngological, Rhinological and Otological Society—The Breakers, Palm Beach, Fla.
- May 9-12 American College of Legal Medicine—Loews Paradise Valley, Scottsdale, Ariz.
- May 11-12 American Academy of Facial Plastic and Reconstructive Surgery—The Breakers, Palm Beach, Fla.
- May 16-18 American Geriatrics Society—Hilton Hotel, Denver
- May 19-25 American Gastroenterological Association—Hilton Hotel, New Orleans
- May 19-25 American Society of Gastrointestinal Endoscopy—Hilton Hotel, New Orleans
- May 20-23 American Thoracic Society—Fontainebleau, Miami Beach
- May 23-26 American College of Sports Medicine—Town and Country Hotel, San Diego

STATE

- April 1-4 Southeastern Surgical Congress—Opryland Hotel, Nashville
- April 11-14 Tennessee Medical Association 149th Annual Meeting—Hyatt Regency Hotel, Knoxville

ERRATUM

In the article "Response to High Blood Pressure Screening and Referral by Medical Students in Rural Communities" by Brad Blankenship and Arden D. Barnett, Jr., Vol. 77, No. 2, February 1984, on page 83 the title for Table 2 should read: Responses to Question 1 by Race/Sex.



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Highlights of the TMA Board of Trustees Meeting

January 14-15, 1984

The following is a summary of the actions taken by the Board of Trustees of the Tennessee Medical Association at its regular first quarter meeting in Nashville on January 14-15, 1984.

THE BOARD:

Impaired Physician Committee	Voted to oppose the Medicare DRG assignment of 8.1 days for the treatment of alcoholism, and directed that the committee submit a resolution to the TMA House of Delegates urging that this regulation be modified to a more realistic assignment of 21 to 28 days.
Committee on Continuing Medical Education	Received a report regarding the new CME accreditation procedures which went into effect Jan. 1 and that the CME Committee has made seven site visits during the last quarter of 1983 with an equal number scheduled for the first quarter of 1984.
Legislative Committee	Voted to oppose state tax reform measures which would put any tax on sick people in the state, whether in the form of a sales or business tax or any type of tax that is not broadly based. Also voted to support legislation raising the legal drinking age from 18 to 21.
Nominating Committee Appointments	Elected these members of the Nominating Committee for the TMA House of Delegates: East Tennessee—Drs. George A. Zirkle, Jr., Knoxville, Jack Butterworth, Jr., Bristol, John E. Strickland, Jr., Chattanooga; Middle Tennessee—Drs. James W. Hays, Nashville, Charles E. Jordan, III, Cookeville, Lloyd T. Brown, Gallatin; West Tennessee—Drs. Phillip A. Pedigo, Memphis, Oscar M. McCallum, Henderson, James H. Ragsdale, Union City.
Appointment of Standing and Special Committees for 1984	Considered and nominated physicians to serve on each of the standing and special committees of the Tennessee Medical Association. In considering the appointments, the Board took into consideration the geographical divisions of the state and established the terms of the committee members in keeping with the Constitution and By-Law requirements. All appointments will become effective at the conclusion of the TMA Annual Meeting in April. A list of the appointments made is on file at the TMA office and is part of the official Minutes.
Distinguished Service Awards	Voted to present the TMA Distinguished Service Award to Dr. Allen S. Edmonson, Memphis, and Dr. Grant W. Liddle, Nashville.
TMA-Student Education Fund Board Appointments	Reappointed Dr. Robert L. Chalfant, Nashville, and Dr. Allen S. Boyd, Jr., Memphis, for three-year terms to serve on the TMA-SEF Board; Dr. Billy J. Allen, Chattanooga, was appointed to serve for a three-year term.
Tennessee Medical Foundation Appointments	Appointed Dr. C. Eugene Jabbour, Memphis, and Dr. John B. Thomison, Nashville, to serve on the Board of the Tennessee Medical Foundation.
State Volunteer Mutual Insurance Company	Named Drs. William F. Buchner, Chattanooga, Luthur A. Beazley, Jr., Nashville, and Hugh Francis, Jr., Memphis, to serve on the SVMIC Loss Prevention Committee. The Board received a report that receipts exceeded expenses from the Loss Prevention Seminars presented by TMA/SVMIC in 1983 and that plans were proceeding for an SVMIC office building to be erected. SVMIC will adopt a new classification system, to be phased in over a two-year period, with 12 rather than the present seven categories, plus a new surcharge table. A \$3 million dividend, payable to policyholders as a premium credit in 1984, will be made.

IMPACT	Received a report that Independent Medicine's Political Action Committee-Tennessee (IMPACT) membership has increased by approximately 200 over last year's membership totals.
Mid-South Foundation for Medical Care Report	Reviewed documents received from the Mid-South Foundation for Medical Care including a current status report on PRO implementation nationally, the Implementation Schedule for the Foundation in Southwest Tennessee and the proposed PRO Implementation Schedule for all states.
Resolution Review	Reviewed resolutions adopted by the TMA House of Delegates seven years previously, which will expire unless reintroduced and/or reaffirmed by the House in 1984. Resolutions Nos. 2-77, 3-77, 5-77, 6-77, and 9-77 will not be reintroduced. Resolutions Nos. 4-77 and 8-77 will be reintroduced. An amendment to the By-Laws, providing implementation of Resolution No. 1-77, will be introduced to allow one delegate and alternate from each of the medical schools in the state, elected through the component society of which the student must be a member. The delegate and alternate will be a delegate and alternate for the component society with full voting rights in the House of Delegates and shall be eligible to hold office.
Community Service Award	Voted that Mason Granger, Memphis, Patricia Cole Thurston, Maryville, and Angeline Yarbro, Tiptonville, be presented with the TMA Community Service Award.
Health Policy Agenda Report	Reviewed a 12-minute slide presentation regarding the AMA's Health Policy Agenda. Dr. Allen Edmonson, TMA's representative on the Advisory Committee, reported as to activities to date and outlined future plans.
Committee on TMA Group Insurance	Approved a new TMA-sponsored group major medical insurance program to be offered to members beginning March 1, 1984.
Conference on School Health Education	Agreed to cosponsor a statewide conference on school health education with the American Lung Association of Tennessee.
Travel Committee	Agreed to sponsor a two-week Mediterranean/Greek Isles cruise in September.
Physician Recruitment Exchange	Voted to again cosponsor a Physician Recruitment Exchange during 1984 with the Tennessee Department of Health and Environment.
ACCME Letter	Nominated Dr. E. William Rosenberg, Memphis, to serve on the Committee for Review and Recognition (CRR) of the Accreditation Council for Continuing Medical Education.
Mandatory Second Opinion	Reiterated its opposition to mandatory second opinion programs after receiving a complaint against Prudential Insurance Company.
Home Health Agencies	Referred to the Governmental Medical Services Committee letters of complaint regarding methods of solicitation of patients by some home health agencies.
AMA House of Delegates Report	Heard a report from Dr. Hamel Eason, Memphis, chairman of the TMA delegation to the AMA House of Delegates, regarding actions of the AMA House at the December Interim Meeting. He outlined action regarding the JCAH medical staff provisions as well as discussions regarding indemnity vs. UCR as a reimbursement method.
Appointment of Legal Counsel	Reappointed Mr. Charles L. Cornelius, Jr., as TMA's legal counsel for 1984.
Financial Statement	Approved the 1983 Financial Statement and the 1984 Budget.
Advisory Panel for Liver Transplants	Named the following members to serve on a Medicaid Medical Advisory Panel for liver transplants: West Tennessee—Dr. L. G. Britt or Dr. James Warren Williams, Memphis; Middle Tennessee—Dr. Harry Lee Greene, Nashville; East Tennessee—Dr. Phillip M. Ricks, Oak Ridge.

John Wesley's "Primitive Physic"— Not So Primitive

John Wesley (1703-1791), of Methodist fame, was concerned with more than souls. In 1747, he published "Primitive Physic: Or an Easy and Natural Method of Curing Most Diseases." The work must have been a success because the copy I came upon was the 24th edition, revised and corrected, and published at Philadelphia in 1795.¹ I found the following excerpts from his preface of interest and not so primitive:

"One grand preventative of pain and sickness of various kinds, seems intimated by the great Author of nature in the very sentence that intails death upon us: 'In the sweat of thy face shalt thou eat bread, till thou return to the ground.' The power of exercise, both to preserve and restore health, is greater than can well be conceived; especially in those who add temperance thereto; who if they do not confine themselves altogether to eat either 'bread or the herb of the field' (which God does not require them to do) yet steadily observe both that kind and measure of food, which experience shews to be most friendly to strength and health . . . As to the manner of using the medicines here set down, I should advise, As soon as you know your distemper (which is very easy, unless in a complication of disorders, and then you would do well to apply to a physician that fears God) *First*, Use the first of the remedies for that disease, which occurs in the ensuing collections; (unless some other of them be easier to be had, and then it may do just as well). *Secondly*, After a competent time, if it takes no effect, use the second, the third, and so on. I have purposely set down (in most cases) several remedies for each disorder; not only because all are not equally easy to be procured at all times, and in all places; but likewise the medicine that cures one man, will not always cure another of the same distemper. Nor will it cure the same man at all times . . . *Thirdly*, Observe all the time the greatest exactness in your regimen or manner of living . . . Use plain diet, easy of digestion . . . Drink only water, if it agrees with your stomach; if not, good, clear small beer . . . Above all, add to the rest (for it is not labour lost) that old unfashionable medicine, prayer. And have faith in God who '*killeth and maketh alive, who bringeth down to the grave, and bringeth up.*' "

"The air we breathe is of great consequence to our health . . . Tender people should have those who lie

with them, or are much about them, sound, sweet, and healthy. Every one that would preserve health, should be as clean and sweet as possible in their houses, clothes, and furniture. The great rule of eating and drinking, is, To suit the quality and quantity of the food to the strength of our digestion . . . For studious persons, about eight ounces of animal food, and twelve of vegetable, in twenty four hours, are sufficient . . . Strong, and more especially spiritous, liquors are a certain, though slow, poison, unless well diluted, and cautiously used . . . Coffee and tea are extremely hurtful to persons who have weak nerves . . . The studious ought to have stated times for exercise, at least two or three hours a-day; they should frequently shave, and frequently wash their feet in cold water. Those who read or write much, should learn to do it chiefly standing; otherwise it will impair their health. The fewer cloathes any one uses, by day or night, the harder he will be; but the habit must be begun in youth . . . The passions have a greater influence on health, than most people are aware of. All violent and sudden passions dispose to, or actually throw people into, acute diseases. The slow and lasting passions, such as grief and hopeless love, bring on chronic diseases, and low fevers. Till the passion which caused the disease is calmed, medicine is applied in vain. The love of God, as it is the sovereign remedy of all miseries, so in particular it effectually prevents all the bodily disorders the passions introduce, by keeping the passions themselves within due bounds. And by the unspeakable joy, and perfect calm, serenity, and tranquility it gives the mind, it becomes the most powerful of all the means of health and long life."

London, June 11, 1747

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Rabies in Tennessee

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CPT. WELDON SCHOTT; and MAJ. MARY VAETH, MC, USA

The occurrence of sylvatic (wild) animal rabies has shown a dramatic increase in both Tennessee and the United States. Data collected by the Centers for Disease Control (CDC) show an 84% increase in rabies isolations for the United States in 1980 when compared to the previous five years.¹ This increase is even more dramatic for Tennessee. Three hundred fifty-six rabies-positive cases were reported by the Tennessee Department of Health and Environment in 1982,² a 712% increase over the annual average rabies isolations from 1975-1979 (Fig. 1). Little comfort can be gained from the fact that domestic animal rabies isolations have remained essentially unchanged since 1974 (Table 1), since the states bordering Tennessee as well as the United States generally have reported a gradual rise in domestic animal rabies since 1978. Though this increase in domestic rabies is less pronounced than that seen among the sylvan animal population, both sylvatic and domestic animal rabies presents a substantial rabies risk for humans in Tennessee.

Tennessee is bounded by two distinct reservoirs of animal rabies. Endemic raccoon rabies is found in the states bordering to the east, including Virginia, Georgia, and Alabama. Tennessee is also on the eastern edge of the second and larger rabies belt commencing in Minnesota and

North Dakota and extending through Oklahoma, Illinois and Texas. In the Midwest, both skunks and bats are the most commonly identified rabid animals, although canine, feline, and bovine rabies frequently occur.

Number of Rabid
Annual Isolations

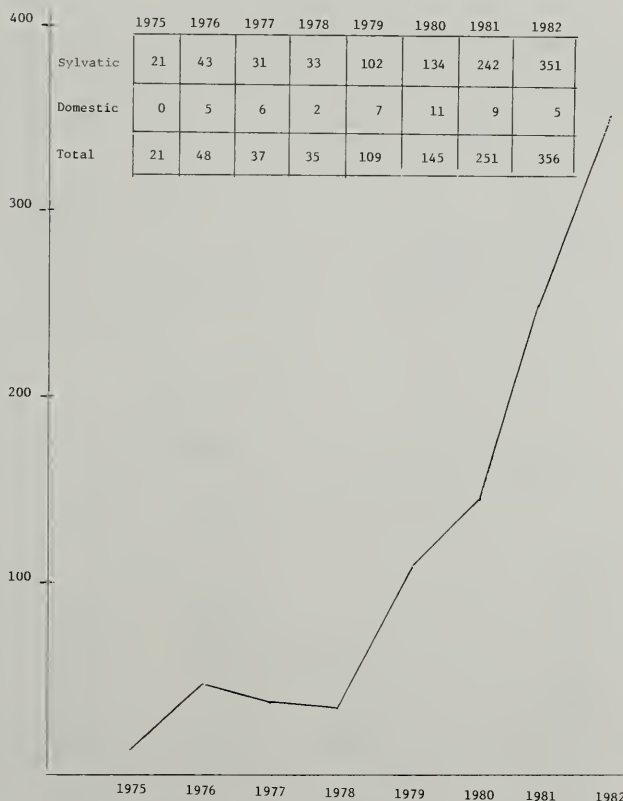


Figure 1. Rabies in Tennessee, 1975-1982.

From the Departments of Pathology and Preventive Medicine, Blanchfield Army Community Hospital, Fort Campbell, Ky.

The opinions expressed by the authors are not necessarily those of the U.S. Army or the Department of Defense.

Reprint requests to Department of Pathology, Blanchfield Army Community Hospital, Fort Campbell, KY 42223 (Dr. Hayne).

RABIES IN TENNESSEE/Hayne

Human rabies in the United States is rare. Two human cases of rabies were seen during the first nine months of 1983 and the same number in 1982. It is probable that more human beings die from dog bites than rabies since comparison figures for dog bite trauma deaths reveal some ten deaths per year. Nevertheless, health care providers should not be lulled into a false sense of security. The increasing number of rabid animals represents a substantial risk for human contraction of rabies. This risk is of such magnitude that the American Public Health Association recently recommended the formation of a national rabies task force to be founded under the auspices of the CDC,³ to study the epidemiology of rabies and develop subsequent containment programs.

Human rabies may, in fact, be underreported.⁴ Individuals suffering from rabies may initially show signs and symptoms of encephalitis, and without a high degree of clinical suspicion, atypical cases of rabies may be misdiagnosed as one of the many more commonly encountered viral encephalitides such as Rocky Mountain spotted fever and the various forms of equine encephalitis.

The health care provider is often required to evaluate patients after their exposure to a potentially rabid animal. By carefully evaluating a series of variables, the physician can determine the need to initiate antirabies prophylaxis.

Rabies virus, a member of the Rhabdoviridae family, is a single stranded RNA virus. A lipoprotein coat developing with the virion explains the ability of lipid solvents to inactivate the virus. In addition, other agents, including sunlight,

heat, air, formalin, and strong acids and strong bases, have the ability to destroy the rabies virus.

Human rabies has a variable incubation period that ranges from ten days to several months due to many factors, including the size of the viral inoculum (which correlates with the severity of the bite) and the distance of the bite from the central nervous system (which correlates with the location of the bite). Recently published data from Ethiopia indicate that in severe attacks the mean incubation time for facial wounds is 30 days, 60 days for upper extremity bites, and 79 days in lower extremity attacks,⁵ though a considerable overlap in the incubation times for these three bite locations was noted.

Though the virus does not appear to pass intact skin, evidence points to its ability to traverse a mucosal surface. Small lacerations and abrasions on the skin surface can also act as a portal of entry.

The prodromal phase of the disease is often manifested by fever, malaise, headache, and sore throat. Of some value are the abnormal neurologic signs found at the bite site, the most important being parasthesia, though other findings may include pain, tingling, burning, cold sensation, and pruritis.

Following the prodromal phase the patient enters the excitation phase in which anxiety and apprehension are commonly seen. Hydrophobia, which is only seen in humans, may become evident at this time, and is caused by the spasmodic discharge of respiratory and swallowing muscles with attempts to eat or drink or even at the sight of water or food. Patients may die during one of these attacks, or survive to enter the third, or paralytic, phase. During this stage, the patient

TABLE 1
ANIMAL RABIES ISOLATIONS IN TENNESSEE 1975-1982

	1975	1976	1977	1978	1979	1980	1981	1982
Domestic								
Cat		1 (2%)						
Cattle		1 (2%)	3 (8%)		1 (1%)	3 (2%)	2 (1%)	2 (4%)
Dog		3 (6%)	2 (5%)	2 (6%)	4 (4%)	8 (6%)	7 (3%)	3 (1%)
Horse	1 (5%)		1 (3%)	1 (3%)	2 (2%)			
Sylvatic								
Bat	6 (29%)	11 (23%)	6 (16%)	7 (20%)	8 (7%)	11 (8%)	16 (6%)	18 (5%)
Fox	5 (24%)	9 (19%)	7 (19%)	3 (9%)	3 (3%)	3 (2%)	10 (4%)	11 (3%)
Raccoon							1 (1%)	1 (1%)
Skunk	9 (43%)	23 (48%)	18 (49%)	22 (63%)	91 (83%)	120 (83%)	215 (87%)	321 (90%)
TOTAL	21	48	37	35	109	145	251	356

loses consciousness, develops a flaccid paralysis, and eventually becomes comatose. Death soon follows.

Indications for Treatment

The decision to treat or not to treat should be based upon careful evaluation of five variables⁶ (Table 2). These variables are the species of biting animal, rabies in the geographic area, provoked versus unprovoked bite, results of veterinarian examination, and animal vaccination status.

Species of Animal (Table 1). The most commonly rabid animals in Tennessee in 1982 were skunks (321). Other rabies-positive wild and domestic animals included bats (18), foxes (11), dogs (3), cattle (2), and a single raccoon. No horses or cats were noted to have rabies for this year. Though only a single rabid raccoon was identified in 1982, the increasing rate of isolation of rabid raccoons has been noted in the states east of Tennessee including Georgia, Virginia, and

Maryland.

Rabies in the Geographic Location (Fig. 2). In 1982, 356 animals were found to have a positive rabies test when examined by the Tennessee Department of Health and Environment, representing an increase of 42% over the number of rabies-positive isolations for 1981. Total rabies isolations for 1981 and 1980 were 251 and 145 respectively. The magnitude of the increasing risk of rabies is best reflected in a comparison of the current isolation number with the average yearly recovery of animal rabies for the period 1975-1979. During this five-year reporting period, an average of 50 rabid animals were identified in the state of Tennessee. Cumulative rabies isolations varied considerably from county to county during the period of 1975-1982.

Provoked Versus Nonprovoked Bite. Nonprovoked wild animal bites carry a substantially greater rabies risk than provoked bites. Caution should be used when labeling a bite unprovoked, since careful questioning may identify a human

TABLE 2
TREATMENT INDICATIONS*

Animal Not Secured		Animal Secured	
High risk of rabies in species of biting animal (raccoon, bat, skunk, fox).		Consult with veterinarian and review the behavior of animal, risk of rabies in sylvan and domestic animal, risk of rabies in sylvan and domestic provoked vs nonprovoked, and vaccination status.	
1. Treat with Human Diploid Cell Vaccine and Rabies Immune Globulin immediately.		1. Abnormal behavior suggestive of rabies or	
2. Continue search for animal.		2. High risk of rabies in species of biting animal (bat, raccoon, skunk or fox) or	
3. Determine antirabies antibody level 2-3 weeks after last Human Diploid Cell Vaccine dose if suspect patient is immunocompromised.		3. Nonprovoked bite.	
If animal is located and antirabies fluorescent antibody test is negative, discontinue antirabies prophylaxis protocol.		A. Kill animal and perform antirabies fluorescent antibody test.	
If antirabies fluorescent antibody test is positive, complete Human Diploid Cell Vaccine protocol.		B. Commence treatment with Rabies Immune Globulin and Human Diploid Cell Vaccine.	
Low risk of rabies in species of biting animal (dog, cat, rat, rabbit, mouse, chipmunk, bird).		C. If antirabies fluorescent antibody test positive complete treatment protocol, determine antirabies antibody titer 2-3 weeks after last dose Human Diploid Cell Vaccine if suspect patient is immunocompromised.	
Consult with veterinarian and continue search for animal.		D. If antirabies fluorescent antibody test is negative, discontinue treatment protocol.	
If veterinarian does not present conflicting epidemiological data and no abnormal animal behavior is noted: DO NOT TREAT.			
If abnormal animal behavior documented, establish independent risk variables. Treatment may be indicated.			
If animal is not found, veterinarian does not present conflicting epidemiological data: DO NOT TREAT.			
		1. No abnormal behavior.	
		2. Low risk of rabies in species of biting animal.	
		3. Provoked bite.	
		<i>Sylvan Animal</i>	<i>Domestic Animal</i>
		A. Kill animal and do antirabies fluorescent antibody test.	A. Quarantine 10 days.
		B. Do not initiate treatment unless antirabies fluorescent antibody test is positive.	B. Do not treat. If abnormal behavior appears during quarantine, kill animal, obtain antirabies fluorescent antibody test and start treatment. If antirabies fluorescent antibody test positive, complete treatment.

*Modified from Hayne et al.⁴

RABIES IN TENNESSEE/Hayne

behavior pattern that could be reasonably interpreted by the animal as threatening, teasing, or startling. When reviewing a domestic animal biting behavior, careful questioning, especially when a child is involved, may reveal provocative behavior towards the biting animal.

Veterinarian Examination. All animals involved in a biting incident should be evaluated by a veterinarian. The current ten-day quarantine recommended by the World Health Quarantine Expert Committee on Rabies may be inadequate. In one instance, secretion of rabies virus was documented 13 days prior to the onset of clinical rabies in an asymptomatic dog. Evaluation of sylvan animal behavior should be conducted by veterinarians who are more familiar with wild animal behavior patterns.

Vaccination Status of the Biting Animal. Domestic animal vaccination protocols for dogs and cats are effective in inducing a protective antirabies antibody titer. No sylvatic rabies vaccine is currently marketed. Thus all sylvan animals, including exotic pets, should be considered unvaccinated. Of considerable importance is the documentation of every claim of vaccination. Each and every vaccination history should be verified.

Antirabies Prophylaxis

The initial treatment of any potential rabies exposure includes copious flushing of the wound area with water and vigorous cleaning with soap. Wound hygiene may substantially reduce the viral inoculum and simple wound cleansing may prevent the disease. It should be remembered that antitetanus prophylaxis may be indicated. In certain dog bites, including those involving the hands, and attacks in which extensive soft tissue trauma has occurred, antibiotic coverage may be advisable.

Both Rabies Immune Globulin (RIG) and Human Diploid Cell Vaccine (HDCV) should be given as soon as possible after the biting incident.⁸ The administration of both the passive protection (RIG) and active immunization (HDCV) if given early enough and according to protocol, is highly effective in preventing the disease (Table 3). The Immunization Practices Advisory Committee reported a 99.9% seroconversion with protective antibodies in 1,300 patients when the HDCV was given according to protocol.⁹ It should be emphasized that the protocol given is for the treatment of individuals who have not received the antirabies vaccine in the past. The current vaccination protocol employs the HDCV in five 1.0-ml doses given intramuscularly on days 0, 3, 7, 14, and 28.

In the near future this protocol may be modified, substituting for the intramuscular doses 0.1-ml HDCV doses given intradermally. Those who have been previously treated for rabies or who have received a preexposure vaccination should receive a 1.0-ml intramuscular dose of HDCV on days 0 and 3. They should not be given RIG. Passive immunization using RIG should be given only once, and is administered up to eight days following exposure. The protocol includes 10 IU/kg RIG given intramuscularly and 10 IU/kg infiltrated into the wound site.

Though minor reactions to the HDCV are common, major reactions seldom occur. The most common reactions include pain, erythema, swelling, and itching. In addition, headache, nausea, abdominal pain, muscle aches, and dizziness may accompany administration of the active vaccine.

Animal Shipment

Any warm-blooded animal may be submitted to the Tennessee State Laboratory. Healthy domestic animals should be quarantined for a ten-day period. If during this quarantine period ab-

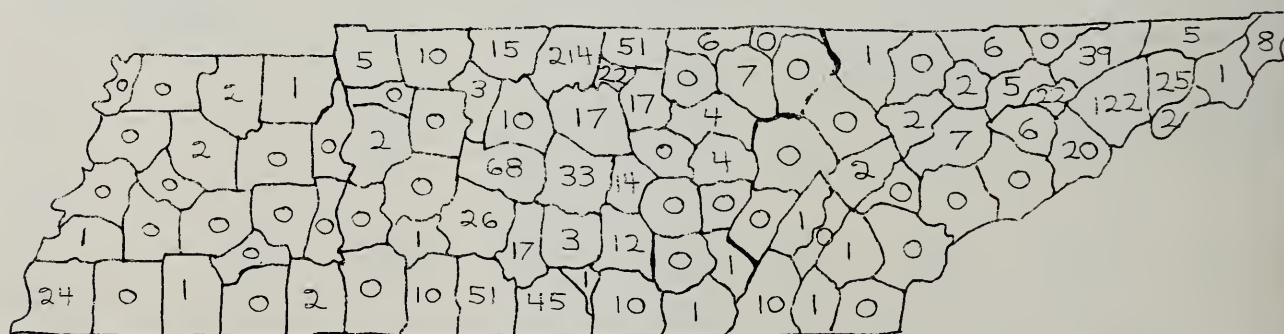


Figure 2. Rabies in Tennessee, 1975-1982 by counties.

TABLE 3

HUMAN DIPLOID CELL VACCINE AND RABIES IMMUNE GLOBULIN TREATMENT PROTOCOL

Previously Vaccinated	Not Previously Vaccinated
1-ml dose of Human Diploid Cell Vaccine IM on days 0 and 3	1-ml dose of Human Diploid Cell Vaccine IM on days 0, 3, 7, 14, 28
Do not give Rabies Immune Globulin	Rabies Immune Globulin (up to day 8): 10 IU/kg IM 10 IU/kg infiltrate site of wound

normal behavior develops, the animal should be sacrificed and submitted for evaluation. All animals as large or larger than a rat should be decapitated and only the head sent to the State Department of Health and Environment. Animals smaller than a rat need not be decapitated prior to shipment.

When shipping a specimen, care should be used to maintain the specimen at 4°C under refrigeration or wet ice. Remains carried directly

to the state laboratory should be transported in a watertight plastic bag. A sealed metal container is advisable when shipping the remains by mail. As previously noted, the specimen should be kept cool with wet ice. A PHLH Form No. 3419 should be included with the specimen.

When submitting animal tissue for examination, include a PHLH Form No. 1584. This form contains pertinent epidemiologic data, including the name of the patient and animal owner, species of animal, exposure history, provoked versus nonprovoked attack, vaccination history, and name and address of submitting physician, veterinarian, or health department.

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Help for Impaired Physicians

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

HELP US TO HELP

Call the TMA Impaired Physician Program (615) 327-2711; outside Nashville call collect. Phone service available around the clock.

Pulmonary Tuberculosis With the Superior Vena Cava Syndrome

JAMES H. MONTGOMERY, M.D.; JOHN P. GRIFFIN, M.D.; and J. PERVIS MILNOR, M.D.

Introduction

Superior vena cava syndrome (SVCS) is a clinical observation most frequently associated with neoplasia. There are several benign causes, all of which are rare. We describe a very unusual case of pulmonary tuberculosis with the superior vena cava syndrome

Report of a Case

A 37-year-old white man was admitted for evaluation of a 30-lb weight loss, headache, cough, two recent episodes of hemoptysis, and inability to climb a flight of stairs because of fatigue and dyspnea. All symptoms had developed over the last six months. Headache, cough, and dyspnea worsened in the recumbent posture, but he had neither chest pain nor dysphagia. He had smoked two packs of cigarettes per day for 15 years. His father died of tuberculosis when the patient was 9 years old, and his mother also had tuberculosis but had received treatment and was reportedly healthy. General inspection revealed a plethoric face and dilated veins on the right side of the thorax. Pressure in the right internal jugular vein produced an oscillating column of blood 11 cm above the clavicle in the standing position, and retinal vessels were engorged. There were no palpable nodes or other masses in the neck or clavicular regions.

Examination of the lungs revealed decreased breath sounds in the right apex, as well as post-tussive rales over the right upper lobe. The remainder of the physical examination was normal. Erythrocyte sedimentation rate was 125 mm/hr (Westergren). Screening blood chemistries were normal except for a modestly elevated LDH. An intradermal (Mantoux) test, using five tuberculin units of Tween-stabilized PPD-tuberculin, developed 40 mm of induration at 48 hours. Histoplasmin skin test was negative. Chest x-rays and tomograms of the right lung revealed atelectasis of the right upper lobe, but no discrete mass (Figs. 1 and 2). Sputum for cytology and acid-fast smears were negative. Venous pressure in the right antecubital fossa was 38 cm of water (normal 10-12 cm). Similarly, the superficial veins of the forearm did not collapse until elevated to 30 cm above the mid-plane of the heart. When 5 ml of a 5% decholin sodium (dehydrocholic acid) solution was injected rapidly into the right antecubital vein to check circulation time, the patient reported a bitter taste 23 seconds later (normal 10-16 seconds).

Bronchoscopy showed marked edema of the right mainstem and upperlobe bronchi, but no mass lesion was evident, and bronchial brushings for cytology were negative. Bronchial washings showed acid-fast organisms and cultures demon-



Figure 1. Frontal chest radiograph of patient with elevated right hemidiaphragm and right hilum due to collapse of right upper lobe.

strated *Mycobacterium tuberculosis*. The patient was begun on isoniazid, rifampin, ethambutol, and pyridoxine and discharged on the tenth hospital day. Over the next six months he gained 27 lb, and his headaches decreased in frequency and severity. He had no further hemoptysis and was able to resume normal physical activity. Sputum smears and cultures have remained negative. Recent chest x-rays have shown aeration of the right upper lobe with some residual fibrosis.

Comment

William Hunter in 1757 is credited with reporting the first case of superior vena cava obstruction, its etiology an aortic aneurysm.¹ Fischer, reviewing 252 cases from the literature in 1904, found 8% were due to tuberculosis, 41% to tumor, and 36% to aortic aneurysm.² Of 125 cases reported by Hinshaw, occurring between 1934 and 1947, 38% were tumor related, 4% were of tuberculous etiology, and 23% were due to aortic aneurysm.³ Urschel and Paulson reported 61 cas-

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Figure 2. Tomogram of right upper lung field demonstrating collapse of the right upper lobe, which has assumed the classical configuration known as the "reverse S sign of Golden."

es of SVCS in 1966, only one being caused by tuberculosis.⁴ In 1975, Lokich and Goodman stated that 97% of all SVCS are cancer related, and that benign causes account for only 3%, with syphilitic aortic aneurysm and tuberculosis virtually unheard of as now causing SVCS.⁵ Harbecke reported a single case of reversible SVCS caused by tuberculosis in 1979.⁶ Although SVCS may be an extremely rare presentation, the prevalence of tuberculosis warrants its consideration in the differential diagnosis.

The diagnosis of SVCS is easily made by history and physical examination. Use of invasive procedures, such as venography, only to diagnose SVCS are unnecessary and potentially hazardous because of the possibility of bleeding due to high venous pressures. The elevated pressure of the veins normally drained by the superior vena cava will cause dilation of collateral vessels over the chest, and edema and redness of the face, conjunctivae, and neck are frequently seen. Ad-

ditional signs and symptoms include headache, increasing collar size, dyspnea, altered mental status, seizures, airway or esophageal obstruction, and chest pain.

It is clear that neoplasia is by far the leading cause of the SVCS, lymphoma and small-cell carcinoma of the lung being the most frequent. Neoplastic causes are much more frequent in the elderly, with male predominance. The syndrome is more frequent with lesions on the right side of the thorax, in a ratio of four to one. Obstruction superior to the azygous vein is generally better tolerated than lesions below it.⁷ Chemotherapy and radiation have extended the life expectancy from weeks to years.

The benign causes, such as aneurysms, thrombosis, actinomycosis, pericarditis, thyroid goiters, idiopathic fibrosing mediastinitis, and tuberculosis, generally are more prevalent in youth. The symptoms and signs may take months or years to become severe enough for the patient to seek medical attention. Recovery is fortunately reasonably rapid with treatment of many of the benign conditions.

Summary

In the first third of this century, neoplasia accounted for less than 30% of SVCS, while syphilitic aortic aneurysm and tuberculosis were responsible for nearly 50% of cases. In the last 30 years neoplasia has accounted for over 90% of SVCS. Although presentation is similar with benign and malignant etiologies, a thorough knowledge of each will facilitate concise diagnostic evaluation and prompt treatment, whether the cause be tumor or a benign etiology such as tuberculosis.

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Intestinal Bacterial Overgrowth In the Pediatric Patient

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Bacterial overgrowth syndrome (BOS) occurs in pediatric patients with a frequency that is underestimated because of lack of awareness of the syndrome and because of the complexity of the diagnostic evaluation. Since its symptoms are both common and nonspecific, it may remain undiagnosed by physicians caring for these patients, with resulting chronic morbidity. To remedy this situation, we present two case reports, with recommendations for an efficient diagnostic evaluation and improved antibiotic therapy in this syndrome.

Case Reports

Case 1. A 2-year-old boy was admitted to the hospital with recurrent diarrhea. As a newborn he had been found to have Hirschsprung's disease with involvement to the level of the transverse colon. After a colostomy was performed at nine days of age, he gained weight normally (Fig. 1). At 10 months of age the stoma was closed and a Duhamel procedure and appendectomy were done. Resected margins contained ganglion cells. From 12 to 24 months of age he had recurrent diarrhea, precipitating five hospital admissions. In addition to diarrhea, vomiting was frequent, with dehydration, anorexia, listlessness, and irritability. Physical examination repeatedly showed a distended abdomen with hyperactive bowel sounds and liquid "explosive" stool occurred on rectal examination; on one occasion a prominent rectal shelf was also noted. Laboratory evaluation during that year included normal stool culture negative for ova and parasites, as well as normal CBC, electrolytes, and barium upper gastrointestinal series. However, serum d-xylose as early as 13 months of age was 14.3 mg/dl one hour after ingestion of 0.5 gm/kg of d-xylose (normal >20 mg/dl). His discharge diagnoses were "gastroenteritis, possible enterocolitis, and probable viral gastroenteritis." He was treated with oral and intravenous hydration, elemental formula, lactobacillus preparation, kaolin-pectin, and a rectal tube at various times, but never had sustained resolution of his diarrhea. He failed to thrive (Fig. 1), and a week after his fourth hospitalization he was readmitted with recurrent diarrhea and vomiting.

On physical examination he was thin and irritable, and had a distended, tympanitic abdomen with palpable rushes. The well-healed scars of his prior surgery were his only other positive physical findings.

Laboratory results included a low one-hour serum d-xylose (17 mg/dl); decreased absorption of vitamin B₁₂ (1.3%; normal 10% to 40%); lower than normal postprandial rise in

serum bile acids (2.3 to 5.8 µg/dl; normal rise >8 µg/dl); and a hematocrit of 37% with MCV 83, MCH 29, and MCHC 35. Barium enema showed possible partial obstruction at the Duhamel anastomosis; proctoscopy and colonoscopy demonstrated a normal appearing Duhamel pouch with gas fluttering through an edematous fold, apparently an enlarged rectocolic anastomotic spur, which would not admit the colonoscope. BOS was diagnosed on the basis of low d-xylose and Schilling tests in a predisposed patient with an otherwise negative evaluation. Treatment with trimethoprim-sulfamethoxazole resulted in immediate and persisting relief from diarrhea for the first time in more than a year. He remained asymptomatic for nearly a year thereafter, excluding one brief episode of vomiting during a tentative attempt to withdraw antibiotics. His improved growth with antibiotic therapy is demonstrated in Fig. 1.

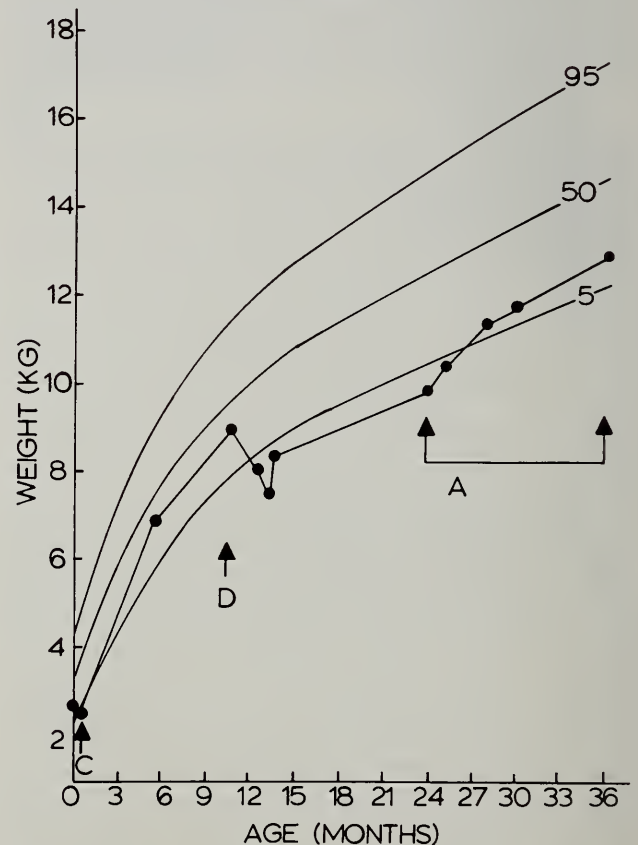


Figure 1. After weight loss to well below the 3rd percentile by 9 days of age, colostomy (C) was accomplished as initial treatment for Hirschsprung's disease. The patient gained weight and remained on the 25th percentile until the colostomy was closed and an apparently partially obstructive Duhamel procedure (D) was performed. His weight fell to well below the 3rd percentile, where it remained until his course of trimethoprim-sulfamethoxazole antibiotic (A) produced a prompt acceleration of weight gain.

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When he was 3 years old, in an effort to confirm his diagnosis, the antibiotics were discontinued after a normal D-xylose (41 mg/dl) was obtained. Within ten weeks he developed watery diarrhea and vomiting without fever. Physical examination demonstrated a softly distended, tympanitic abdomen. Normal laboratory results included CBC, differential, and RBC indices; urinalysis (other than SG 1.030 and 4+ acetone); serum folate; stool culture (including no *Yersinia* and *Campylobacter*); and search for ova and parasites in stool and duodenal fluid. D-xylose was 6.5 mg/dl, Schilling test demonstrated decreased absorption of vitamin B₁₂ with intrinsic factor (1.4%), although serum vitamin B₁₂ level was 1,045 pg/ml, slightly above normal. Upright abdominal x-ray showed hazy fluid-filled abdomen with multiple air-fluid levels. Duodenal intubation for aerobic and anaerobic colony counts did not show increased bacterial colonization, but he again responded rapidly to treatment with trimethoprim-sulfamethoxazole.

Case 2. An 1,800-gm small-for-gestational-age (SGA) term infant was noted at birth to have gastroschisis, with midgut, colon, uterus, ovaries, and bladder herniated through the defect. Primary closure on the first day of life was followed by a stormy course complicated by respiratory distress, pneumothoraces, atelectasis, bronchopulmonary dysplasia, ventilator dependence, pulmonary hypertension, cardiorespiratory arrest, paroxysmal supraventricular tachycardia, transient renal insufficiency, and cholestasis. At one week of age, she developed necrotizing enterocolitis with perforation, requiring resection of distal jejunum and proximal ileum and creation of a jejunostomy and distal ileal mucous fistula, which were reanastomosed nearly two months later.

She was initially nourished parenterally, and although she tolerated increase of enteral calories up to 40% to 60% of her total calories via an elemental formula on four occasions from age 1.5 months to 4.5 months, each time diarrhea, or lack of weight gain in spite of caloric intake over 130 cal/kg/day, necessitated reinstitution of total parenteral alimentation. Multiple stool evaluations for pathogenic bacteria, ova and parasites, and rotavirus were negative.

At 4.5 months of age, preparations were in progress to discharge her with home parenteral nutrition, but because a

barium small bowel x-ray study had shown very slow transit and some kinking of bowel, evaluation for BOS was instituted. D-xylose on three occasions from age 3 months to 4.5 months were 5.4, 9.6, and 8.4 mg/dl. Schilling test with intrinsic factor showed low vitamin B₁₂ absorption (5.2%), and serum bile acids showed cholestasis (70 µg/dl) with minimal postprandial rise (to 76 µg/dl). Small bowel biopsy demonstrated only mild villus atrophy. BOS was presumptively diagnosed, and trimethoprim-sulfamethoxazole was begun at 5 months of age, permitting rapid advancement of enteral nutrition and discharge from the hospital two weeks later. She continues to thrive while receiving the antibiotic; her weight is now at the tenth percentile for age, in spite of her SGA birthweight and complicated neonatal course.

Discussion

Intestinal bacterial overgrowth syndrome is a condition resulting from the abnormal proliferation of bacteria in the small intestine.¹⁻³ The normal numbers and kinds of bacteria in the small bowel range from less than 10⁵ of oral flora (streptococci, staphylococci, and diphtheroids) in the duodenum, up to 10⁸ of coliform-predominant organisms in the distal ileum. The colon harbors increasing populations of coliforms, as well as anaerobes, in numbers above 10⁹. The physiologic defenses that ordinarily maintain the bacterial flora within normal ranges may be disturbed by various disease states, setting the stage for BOS (Table 1). When the numbers and types of bacteria usually found only distally multiply in the more proximal intestine, malabsorption, diarrhea, and malnutrition, the major manifestations of BOS, are produced by mechanisms

TABLE 1

NORMAL DEFENSES AGAINST BACTERIAL OVERGROWTH SYNDROME, THEIR DERANGEMENTS, AND EXAMPLES

Normal Defenses	Derangements of Normal Defenses	Examples of Predisposing Disorders
Barriers	Barrier Deficits	
Gastric acid	Achlorhydria	Postvagotomy, postgastrectomy, ?neonatal
Bile	Bile secretion deficiency?	?Cholestasis, ?bile diversion, ?ileal disease
Ileocecal valve	Ileocecal valve elimination	Ileocolic resections, enterocolic fistulas
Distance from colon	Decreased enterocolic distance	Extensive small bowel resection, enterocolic fistulas
Peristalsis	Stasis	
	Dysmotility	Postvagotomy, pseudoobstruction, scleroderma, diabetes
	Partial obstruction	
	Congenital	Diaphragms, bands, stenosis, Hirschsprung's
	Postsurgical	Strictures, adhesions
	Other	Ischemia, tumor, radiation
	"Pouches"	Diverticulae, duplications, blind loops (side-to-side, end-to-side anastomoses; bypass surgery)
Local Immune Defenses	Immunocompromised Patients	
Antibodies		Various, especially IgA deficiencies
Mucus		
Bacterial Interactions	Disturbances of Normal Flora	
Oxidation-reduction		?Antibiotics, ?enteric infections
pH		
Other		

outlined in Table 2. The most common predisposing conditions in children are congenital and post-surgical partial intestinal obstruction.

Although BOS has been reviewed recently,¹⁻³ the currently recommended methods for diagnosing and treating it have major drawbacks in pediatric patients. The diagnostic methods are so cumbersome that they are currently performed mainly by physicians with a research interest in bacterial overgrowth, which has probably led to the underdiagnosis of this syndrome, as suggested by the long latency to diagnosis in the two patients reported here. In addition, the antibiotics recommended as therapy have significant disadvantages for use in pediatric patients, although as exemplified by these two case reports, they are surmountable.

Bacterial colony counts on intestinal fluid usually have been utilized to diagnose bacterial overgrowth, and are the "gold standard" for diagnosis. Although such bacteriologic confirmation is desirable, proper collection of samples and interpretation of results are difficult, and such colony counts require intestinal intubation, rigorously controlled conditions to culture anaerobic as well as aerobic bacteria, multiple dilutions of intestinal fluid for accurate colony counts, and qualitative as well as quantitative descriptions of flora, making the assistance of an interested microbiologist essential.³ In addition, in patients in whom the obstruction producing stasis is quite distal, proximal colony counts may be normal, as in Case 1.

When bacteriologic evaluation is not feasible or not diagnostic, an understanding of the pathophysiologic mechanisms operative in BOS still allows one to diagnose this syndrome with confidence.

Bacterial metabolism of ingested nutrients and bacterial damage to the mucosal surface produce generalized malabsorption of ingested nutrients in BOS, a consequence of the syndrome that can be assessed with the d-xylose absorption test. In pediatric patients, this test is performed by measuring serum d-xylose one hour after an oral dose of 0.5 gm/kg d-xylose. Decreased absorption of this pentose documents generalized mucosal malabsorption.⁴ The d-xylose absorption test is a good screening test, but it is not specific, since surgical short bowel or specific gastrointestinal infections may also cause xylose malabsorption, but an abnormal xylose absorption test in a pa-

tient with an anatomic abnormality predisposing to stasis should alert one to consider BOS.

Distal ileal malabsorption of vitamin B₁₂ in BOS is due both to distal mucosal damage by bacteria and to bacterial binding and metabolism of the vitamin. Although intrinsic factor protects vitamin B₁₂ from uptake by most bacteria, anaerobes (specifically *Bacteroides*) can bind and metabolize vitamin B₁₂ in spite of prior complexing to intrinsic factor,⁵ explaining the particularly detrimental effect of anaerobic proliferation proximal to the ileocecal valve in this syndrome. In patients with longstanding bacterial overgrowth, this abnormality of vitamin B₁₂ absorption will have produced a megaloblastic anemia, one of the hallmarks of the disease in adult patients. Most pediatric patients will not have megaloblastic anemia, however, since deficient absorption of vitamin B₁₂ takes years to produce symptoms.⁶ This may be evaluated by the Schilling test, which, like the d-xylose test, is nonspecific, and abnormalities may be caused by surgical removal of distal ileum, for example. The Schilling test, however, has been found to be of comparable sensitivity to small bowel cultures in diagnosing BOS,⁷ and an abnormal Schilling test corrected with antimicrobial therapy is presumptive evidence for BOS.

When abnormal numbers of bacteria proliferate in the intestine, they deconjugate and dehydroxylate bile acids in greater than normal quan-

TABLE 2

MECHANISMS OF DISEASE IN BACTERIAL OVERGROWTH SYNDROME

Consumption of nutrients by bacteria
Nutrients ingested by the host
Reutilizable "nutrients" secreted by the host
Pancreatic enzymes
Mucus
Sloughed cells
Cobalamin (Vitamin B ₁₂)
Bacteroides can remove B ₁₂ bound to intrinsic factor
Inert bacterial metabolites of B ₁₂ compete for ileal sites
Mechanical block of mucosal surface area by bacteria
Elaboration of enzymes by bacteria
Enzymatic damage to mucosa
Enzymatic destruction of brush border disaccharidases and proteases
Deconjugation of bile salts by bacteria
Malabsorption of fat and fat-soluble vitamins
Mucosal damage by unconjugated bile acids
Colonic secretion stimulated by unconjugated bile acids
Colonic secretion stimulated by malabsorbed fatty acids
Mechanisms producing diarrhea
Secretory (colonic bile acids and fatty acids)
Osmotic (malabsorbed carbohydrate)
Steatorrhea (malabsorbed fat)

tities. These changes in the bile acids result in their precipitation in the intestinal lumen, and thus they are not reabsorbed normally. In addition, damage to distal ileal mucosa by the increased numbers of bacteria⁸ may produce dysfunction of the distal ileal receptors for bile acids. The deconjugation and dehydroxylation of bile acids, and possibly the ileal mucosal damage, cause an interruption of the enterohepatic circulation of bile acids that results in fat malabsorption and diarrhea.⁹

Evaluating bile acid kinetics may help in diagnosing BOS. The ¹⁴C-cholylglycine and ¹³C-cholylglycine breath tests provide evidence for increased deconjugation of bile acids in the intestinal lumen,^{7, 10, 11} but cost, radiation exposure, and low availability limit their use in pediatrics. An alternative method of assessing the altered bile acid kinetics involves demonstrating a blunting of the normal postprandial rise in serum bile acid concentration, for which measurements of fasting and postprandial serum cholylglycine (a conjugated form of one of the two primary bile acids) have been used.¹² Similarly, we measure fasting and postprandial serum total bile acids by the 3 α -hydroxysteroid dehydrogenase method¹³; normal patients demonstrate a rise of 8 μ g/dl or more. A blunted postprandial response indicates a disturbed enterohepatic circulation, and in a predisposed patient suggests BOS. This malabsorption of bile acids should, like the malabsorption of vitamin B₁₂, be corrected by therapy.

In short, the pathophysiologic manifestations of BOS may be utilized to evaluate patients for this syndrome when specific bacteriologic confirmation is unavailable or not diagnostic. Evaluation for BOS thus may begin with suspicion of the disease in patients with diarrhea and malabsorption who are predisposed to stasis by anatomic or motility disorders; the latter can usually be demonstrated on a barium x-ray. Abnormal d-xylose absorption, abnormal Schilling test, abnormal postprandial rise in serum bile acids, and the elimination of other possible causes for the pathophysiologic changes suggest bacterial overgrowth. Quantitative bacterial cultures, if possible, and the response to antibiotic therapy and relapse with its withdrawal, confirm the diagnosis.

Therapy for BOS involves correction of the predisposing disorder if possible, and antibiotics if correction is not possible. The choice of antibiotic has usually been empirical. Although anaerobic antibiotics would seem indicated be-

cause of the known prevalence of anaerobes in this disorder, the use of aerobic antibiotics to kill oxygen-consuming flora might secondarily produce an unfavorable environment for anaerobes. Antibiotics used have included ampicillin,¹⁴ tetracycline,^{2,3,7,15} chloramphenicol,² metronidazole,³ lincomycin,^{3,15} clindamycin,¹⁶ and erythromycin.¹⁷ Potential complications, including dental staining, aplastic anemia, tumorigenicity, pseudomembranous enterocolitis, and frequent gastrointestinal complaints limit the utility of these antibiotics in pediatric patients. Although no previous use of trimethoprim-sulfamethoxazole has been reported, our experience indicates that it is useful in treating this disorder. We have used it with success in a number of patients afflicted with BOS, in whom the underlying predisposing structural or functional disorder was not amenable to correction. In such cases, continuous or intermittent antibiotic therapy is needed indefinitely to suppress intraluminal bacterial populations.³ Since trimethoprim-sulfamethoxazole has been used safely during prolonged periods in children with chronic otitis or urinary tract infection, it is unlikely to have prohibitive risks to chronic use in BOS either. One should, however, demonstrate clinical and functional improvement during administration of the antibiotic, and relapse after its withdrawal, before planning long-term therapy.

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Theophylline Pharmacokinetics

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A 52-year-old white man, with a long history of cigarette smoking and chronic obstructive pulmonary disease was admitted to the Veterans Administration Hospital in December 1982 for elective radiotherapy of a cerebral tumor. He was seen initially in February of 1982 because of a left focal seizure subsequently found to be related to a right frontal intracerebral mass. At craniotomy for debulking it proved to be a poorly differentiated adenocarcinoma. Phenytoin, decadron, and phenobarbital were added to the anhydrous theophylline that he had been taking chronically for pulmonary disease. A consistently low serum theophylline level necessitated a step-wise increase in the dose from 100 mg every 12 hours to an ultimate 600 mg every eight hours.

In June of 1982 he underwent intracranial radiation for recurrence of the cranial tumor after having complained of swelling of the right arm and a large mass in the neck. His medications at the time were phenytoin 200 mg every 12 hours, phenobarbital 30 mg every eight hours, anhydrous theophylline 600 mg every eight hours, decadron 4 mg orally every seven hours, terbutaline 5 mg every eight hours, and metaproterenol inhaler as needed.

On the present admission vital signs were normal except for a respiratory rate of 30/min. He was a cachectic, chronically ill-appearing white man with an old craniotomy scar and a 4 x 5 cm firm, non-tender mass in the right anterior cervical triangle. The thorax was increased in AP diameter and there was moderate diffuse wheezing throughout both lungs. The pulmonic second sound was loud. The right upper extremity was edematous with dilated superficial veins, and there was a mild right hemiparesis that had been present for several months.

The laboratory test results were normal except for a serum bicarbonate of 31 mEq/liter, alkaline phosphatase of 350 IU/liter, and serum calcium of 7.9 mg/dl. The electrocardiogram was normal. The thoracic roentgenogram revealed hyperinflated lungs with apical bullae.

With serum levels of his two drugs as shown in Table 1 he remained wheeze-free, and irradiation of the right axilla and supraclavicular area with a total of 3,500 rad resulted in almost complete resolution of edema of the right upper extremity and the symptoms therefrom.

The final diagnosis was metastatic adenocarcinoma of brain and cervical node (primary site unknown); chronic obstructive pulmonary disease (COPD).

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TABLE 1

SERUM LEVELS OF MEDICATIONS*

	January 10	January 17	January 24
Theophylline	9.2	9.9	7.7
Phenytoin	7.0	5.8	7.8

*Serum levels in µg/ml.

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The usual approach to a review of the pharmacokinetics of theophylline is to present and discuss a patient who is intoxicated from the drug. Today's patient, however, demonstrates something different, yet important clinically, namely resistance to attainment of therapeutic serum levels.

Theophylline: Questions and Answers

Some of the common questions asked about theophylline in terms of its dosing and toxicity follow:

1. What is its optimal therapeutic serum level? (It is 10 to 20 µg/ml.)
2. When should blood be drawn to determine serum level in relation to dose? Since substantial errors are generated by variation from the ideal interval, I will address this issue below.
3. What time period is required to achieve a steady state following initial administration or following dosage alterations of theophylline? (There is a basic pharmacokinetic principle that drugs accumulate according to their half-life. It requires approximately four to five half-lives for a drug to accumulate maximally to steady state, and if serum concentration is determined earlier, it may give a falsely low reading.)
4. Are there identifiable risks for develop-

ment of intoxication? (These are listed in Table 2 and will be discussed later.)

5. Do any drugs interact significantly with theophylline? (These are listed in Table 3.)

6. Can relatively benign signs (i.e., nausea and vomiting) be relied upon as early warning of more serious intoxication to come? (Theophylline was administered rather crudely for years. Though available since the 1940s, the recognition of its toxicity came about only in the late 1960s and early 1970s. Before the advent of sustained release preparations and serum concentration monitoring, dosage was determined from symptoms of intoxication, the drug being given until an indicator of intoxication, usually nausea, appeared, and then reduced a small amount, and maintained on that reduced dose. This is a hazardous way of prescribing theophylline because only some 30% of patients experience nausea prior to the onset of such serious manifestations as seizures or malignant arrhythmias.)

7. How is accurate conversion from intravenous (IV) to oral dosage achieved? (The cost of serum assay can be immense, especially if assay is misused. In the private sector locally, the cost for a single determination is approximately \$40. As in our case, where the patient may be experiencing a significant drug interaction, three to six levels may be necessary to get the concentration stabilized, with an expenditure of \$120 to \$240 just to evaluate the drug's IV dosing. If switching to a dose of an oral product is done empirically it may be necessary to go through this process of titration and evaluation all over again.)

8. Are the gastrointestinal disturbances seen with the drug generated locally or centrally? (Local effects are transient, and observed shortly after dosing, whereas central nausea and vomiting are related to high serum concentrations and are persistent over the entire dosing interval.)

9. Does elimination of theophylline slow down

at high concentrations thus prolonging intoxication? (Yes; this is an important concept that must be remembered when dealing with intoxicated patients. The elimination half-life is usually unpredictable and prolonged in these situations.)

10. How should intoxication be managed? (We will answer this later.)

11. Should a newly admitted, symptomatic patient on oral theophylline be reloaded? (I will give an actual scenario later that will disclose the answer to this question.)

Pharmacokinetics

Pharmacokinetics is a tool that may be used in the clinical estimation of serum drug levels resulting from a specific dosing regimen. The parameters used in making this estimate are absorption, distribution, metabolism, and excretion (clearance).

Apparent Volume of Distribution

Apparent volume of distribution (Vd) is an abstract term expressed as a ratio of the total amount of drug in the body to its concentration in the serum. It is the "apparent" volume of fluid needed to dilute the amount of drug present in the body to yield a given concentration in the serum. To maintain a fixed serum concentration, the larger the diluting volume, the greater the total amount of drug that must be given.

The numbers expressing Vd in liters are often very large. For digoxin, for example, it may be as high as 400 to 500 liters. There is obviously not that volume of fluid available in the body, but the huge distribution in tissues of this highly lipophilic drug accounts for its "apparently" large Vd. With theophylline, the average Vd in normal subjects is around 0.5 liter/kg of lean body weight. If a fixed dose is given to patients with different Vd, dramatic differences in corresponding serum levels result. The smaller the Vd (the more contracted the space), the higher the attainable serum level will be from a given dose. By contrast, a smaller peak serum level is attained from the same dose with a larger Vd.

Variations in Vd are encountered with theophylline and are important to appreciate clinically. A healthy young nonsmoking patient will have a Vd of approximately 0.5 liter/kg, which amounts to 35 liters in an individual weighing 70 kg. With disease, for example bronchial asthma, there is a change in the Vd especially if the patient happens to be obese.

Obesity: In obese patients the Vd is most ac-

TABLE 2

FACTORS THAT DECREASE THEOPHYLLINE CLEARANCE
(RISK FACTORS FOR TOXICITY)

- Hepatic cirrhosis
- Acute hepatitis
- Cholestasis
- Cardiac failure
- Cor pulmonale
- Pneumonia
- Low protein/high carbohydrate diet
- Older age

curately determined on the basis of lean body weight rather than total body weight, since if such a patient's dose is based on total body weight, toxicity could occur due to the Vd being smaller than calculated from total weight. Extremely obese patients have unusually small Vd due to their substantial adipose tissue. To illustrate, if an obese patient is 100% over desirable lean body weight (i.e., total weight 400 lb, with 200 lb of fat) the Vd of theophylline may be as low as 0.25 liter/kg. Thus, the more obese the patient, the greater the caution and the smaller the dose that must be used for loading with and for maintaining a therapeutic level of theophylline.

How then is dosing with theophylline safely accomplished in obesity? The easiest and most conservative way of avoiding problems is simply to load on the basis of lean body weight, though there is some controversy as to whether maintenance should be continued on the basis of lean or total body weight. I would take the conservative approach and base both the loading and the maintenance dosage on lean body weight, especially in extremely obese patients. There are various formulas for calculating lean body weight to arrive at the appropriate parameters.

Effect of pH: As the patient becomes acidotic and the pH of the blood falls, the Vd expands,¹ which means that as a patient becomes acidotic, a given dose of theophylline will yield a lower than expected serum level. The opposite is seen with alkalosis: the Vd contracts. The easiest way to remember this is that with a constant dose, the serum level will go in the same direction as the pH. Thus, as the patient becomes acidotic and the pH drops, the serum level will go down with a fixed dose, and conversely, as the pH rises the serum level will rise.

Metabolism and Clearance: Since theophylline is biotransformed by the liver and cleared by the kidneys,² the drug must be given cautiously to patients with hepatic failure, but the procedure to be followed is not so clear in patients with impaired renal function. It seems that with low or therapeutic doses, the mechanism of renal clearance plays a minimal baseline role in elimination, but if the patient becomes intoxicated, and the hepatic clearance pathways thus become saturated, renal clearance becomes increasingly important.³ Likewise, if the patient is elderly, or has renal insufficiency with a decreased creatinine clearance, this renal shift may become important kinetically.

Age: The Vd of unbound drug is statistically

TABLE 3
DRUG INTERACTIONS THAT DECREASE
THEOPHYLLINE CLEARANCE

High dose allopurinol
Cimetidine
Erythromycin (base and salts)
Influenza A vaccine (possible)
Propranolol
Troleandomycin

altered from 1.38 in the young to 0.86 in the elderly. Also, unbound plasma clearance seems to be diminished as well; as the creatinine clearance falls with age, so does the unbound theophylline clearance. Although many believe this may be of minor importance, it deserves further investigation, since specific recommendations are lacking.

Clearance

Looking at total clearance of theophylline, the mechanism can be saturated and can be dose-dependent, or simply stated, drug elimination is slowed substantially in patients with high serum concentrations. This can be a source for serious error in dealing with intoxicated patients. In this situation serum level monitoring is an absolute necessity for establishing an elimination curve to allow proper reinstitution of dosage with the drug. The use of "normal" half-life data often leads to premature readministration of the drug and prolongation of intoxication. Further discussion of this zero-order kinetic behavior is provided elsewhere.⁴

A practical example of this concept may be useful. A patient with chronic lung disease having a history of theophylline therapy came to our admitting area with severe dyspnea and audible wheezes. He had multiple past admissions for COPD for noncompliance with medication. The initial assessment was that his level of theophylline was subtherapeutic, probably due to noncompliance. It was decided therefore to give only a half dose for reloading, the appropriate procedure in the light of his medication history. After transportation to the intensive care unit, when the patient continued to wheeze and remained air hungry, it was decided to give the other half of the load. He therefore received 3 mg/kg in the emergency room and another 3 mg/kg in the ICU. During the second loading effort, the patient had a grand mal seizure, initially attributed to hypoxia. The loading was continued, but after another seizure the theophylline was discontinued.

To learn from experience, we decided to do a series of serum levels, obtaining one every six hours for 24 hours following the second loading dose. These are shown in Table 4.

A log concentration/time plot of these data demonstrated a slower zero-order clearance* ($T_{1/2}=17.5$ hours) initially, and a first-order clearance† ($T_{1/2}=5.2$ hours) after 18 hours. In retrospect, even though his pulmonary disease was symptomatic, the patient was apparently compliant with his regimen to the point of intoxicating himself.

Another patient seen recently demonstrated a similar kinetic behavior. From an initial level of 33 $\mu\text{g/ml}$, serial theophylline levels disclosed a half-life of 70 hours for the first 24-hour period; this declined to 48, 14, and finally 7 hours over the next three days to a final serum level of 6 $\mu\text{g/ml}$. He became saturated very early, revealing that the enzymatic process responsible for hepatic clearance can be saturated. This occurs usually, but not exclusively, at high dosages, and can lead to difficulties if the therapist is not aware of the possibility.

Hepatic Clearance: Since the theophylline is cleared in the liver through the microsomal enzyme pathways, any chemical that acts as an enzyme inducer will increase its clearance. There are several enzyme stimulants that have been identified recently. Patients who smoke seem to tolerate more drug because the half-life of theophylline is shorter in such patients. Clearance is apparently accelerated through the enzyme induction effect of 3-4 benzpyrene, a gaseous substance in the smoke, rather than by nicotine. Since the compound is also found in marijuana smoke, patients who smoke both tobacco and marijuana demonstrate this even more dramatically. There is a minimum number of cigarettes per day one has to smoke to achieve a significant degree of increased clearance. It appears to be ten cigarettes per day. After abstention from tobacco, the effect may persist for as long as two years, but the usual duration is about three months.

What is the clinical significance of this other than that these patients require more drug? Suppose a patient is a smoker with a theophylline

level at steady state. Using the average half-life and average V_d for the adult smoker of 70 kg from published data, the plasma concentration at a steady state is calculated at 17.8 $\mu\text{g/ml}$. The dose required to achieve this is 500 mg theophylline every 12 hours. By some miracle you convince the patient to stop smoking and three months pass. Over that three months the effects of the 3-4 benzpyrene theoretically subside, and the clearance diminishes. Unless the dose of theophylline is decreased, accumulation would be expected. Using statistical values for half-life and V_d in this patient as a nonsmoker, and continuing the same dose (500 mg every 12 hours), the serum level would rise to 32 $\mu\text{g/ml}$ from 17.8 $\mu\text{g/ml}$, and without dosage adjustment the patient could become intoxicated, clearly unjust retribution for self-correction of a dangerous habit.

A low carbohydrate/high protein diet may also substantially increase clearance, but to a lesser degree than smoking does.

Effect of Interacting Drugs on the Pharmacodynamics of Theophylline

In our patient of today we could not achieve an adequate serum concentration on the usual theophylline dosage. A recent article⁵ led us to consider the possibility that he was experiencing an interaction between phenytoin and theophylline, since phenytoin is a well-documented hepatic enzyme inducer. There is evidence that theophylline is cleared through the cytochrome P 448 mixed oxidase pathway, and since phenytoin is a P 450 stimulator, we may conclude from this reported interaction that theophylline is also cleared through the P 450 pathway. The clearance rate of theophylline under the effects of phenytoin is increased approximately twofold, which means that the half-life is reduced from about 6.3 hours before phenytoin is given to as short as 3.75 hours after. This may be appreciated better in terms of the clearance, which is increased from 72 ml/kg/hr to 116 ml/kg/hr, an almost twofold increase in the clearance of theophylline that requires increased dosage to maintain a given serum level.

We were never able to get this patient's level over 9.9 $\mu\text{g/ml}$. If his oral dosage is depicted as IV aminophylline equivalence, his requirement of 600 mg every eight hours of sustained theophylline is equivalent to 1.897 mg/kg/hr of IV aminophylline. This is roughly twice the normal dosage for a healthy young person, and some three times that for an individual of this age.

*First-order clearance—The rate of removal of a drug is proportional to the plasma concentration; the latter diminishes logarithmically with time (a linear relationship).

†Zero-order clearance—Metabolic clearance proceeds at a constant rate regardless of dose. Large doses of drug are cleared at a slower rate and have a longer $T_{1/2}$ than small doses. There is a disproportionate increase in plasma concentration with increased doses.

TABLE 4
SERUM LEVELS OF THEOPHYLLINE

Time	Concentration ($\mu\text{g/ml}$)
0	52.6
6	43.0
12	30.0
18	22.0
24	10.3

Phenytoin not only increases the clearance of theophylline, but oral theophylline may also impair absorption of oral phenytoin. Our attempts at dosage adjustment of phenytoin to get therapeutic concentrations were unsuccessful, though we did get up to a concentration of 8.3 mg/liter on 500 mg once a day. It is likely he was malabsorbing phenytoin as well as experiencing the increase in clearance of theophylline. The patient was also receiving phenobarbital, also an enzyme inducer, which may have contributed to the increased clearance.

In conclusion, I think this case demonstrates quite dramatically that theophylline and phenytoin interact to a clinically significant degree. A major episode of theophylline toxicity could result if phenytoin was discontinued at a future date with no downward adjustment in theophylline dosage.

Table 2 provides a list of factors reported to *decrease* theophylline elimination rate. They are, in effect, risk factors for toxicity. It might be thought that caffeine, a methylxanthine, and its metabolites could contribute to the saturable clearance mechanisms for theophylline. Since this is a zero order process, caffeine could theoretically cause the patient to retain more theophylline, but this has been shown to be of minor importance.

Another factor that decreases clearance is age, due partly to the mentioned renal mechanisms, partly to alteration in protein binding, and partly to decreased hepatic clearance. The dose required to keep the serum levels in the therapeutic range of 10 to 20 $\mu\text{g/ml}$ may be reduced from 25 mg/kg/24 hr in the young to as little as 15 or 16 mg/kg/24 hr in the elderly.

Other factors that contribute to a decrease in clearance are some of the complications of disease of the heart and lungs—pulmonary edema, pneumonia, and congestive failure. As such patients improve, their theophylline clearance also improves.

There are several drug interactions that add risk (Table 3). Certainly a drug that suppresses hepatic clearance through enzyme inhibition would present an added risk. The most commonly prescribed of such drugs today is cimetidine. Since the H_2 antagonist inhibits microsomal enzymes and possibly reduces hepatic blood flow, it can interact with other drugs removed by the liver, and the half-life of theophylline is increased after one day from 7.6 hours to 10 hours, and after eight days to 11 hours. Clearance is rapidly diminished from 46 ml/kg/hr to 37 ml/kg/hr after one day of cimetidine, and after eight days to 31 ml/kg/hr. There is no significant change in the Vd. The two drugs must therefore be used together with caution. It appears presently that ranitidine, a new H_2 antagonist, may only minimally impair theophylline clearance, if at all.

It may not be completely safe to give erythromycin, a macrolide antibiotic, to a patient taking theophylline. Since the antibiotic may be needed in patients with chronic lung disease already at steady state on theophylline, there has been debate in the literature as to whether or not this interaction is significant. A recent study,⁷ and probably one of the better ones, was done in patients who did not have pneumonia at the time of the evaluation, the specific criticism being the likelihood that the pneumonia rather than the erythromycin contributed to the decreased clearance of theophylline. This recent study, however, showed that with the stearate salt of erythromycin, the half-life of the concurrently administered theophylline increased 21%, with the erythromycin base product the increase was 51%, and with the ethylsuccinate it was 60%. Troleandomycin (TA), a macrolide antibiotic not as widely prescribed, also decreases clearance by as much as 50%.

Allopurinol, a xanthine oxidase inhibitor, has interaction potential. Studied in the past at the usual dose of 300 mg/day, it was shown to give no difficulty, but with 300 mg every 12 hours, however, which some patients may require, theophylline clearance may be diminished with a change in elimination after 28 days of the uric acid inhibitor.⁸ Thus, it appears from these data that allopurinol in high doses has some potential for interaction with, and reduction in clearance of, theophylline.

Serum Monitoring

Serum concentration monitoring is critical. I believe we must monitor levels to use this agent

properly. An established relationship between optimal response and the serum concentration⁹ has been demonstrated by comparing FEV 1.0 second to concentration in patients with COPD. Optimal responsiveness is achieved at a serum concentration of 5 to 20 µg/ml.

When should these levels be obtained and evaluated in the dosing sequence? Since this is a common question, I think because we have the product available in so many dosage forms it is worth looking at three representative ones. With the IV form, aminophylline, blood for determination of the level should be drawn at steady state, based on the drug's half-life in the individual patient. It requires roughly five half-lives to obtain steady state, which in the average patient will occur in about 24 to 36 hours. A minimum of 24 hours of maintenance dosing is desirable following loading before evaluating the drug's serum concentration.

If you choose to use a nonsustained rapid release oral preparation, blood should be drawn approximately 0.75 to 1.5 hours after a dose has been administered and steady state has been attained. Additionally, if theophylline dose is changed one afternoon, do not waste your and the laboratory's time monitoring the level the following morning because the new equilibrium or steady state will not have been achieved. With a sustained-release preparation, dosage should be evaluated at a peak serum level four hours after the dose is administered and at steady state concentration. Some believe that morning nadir serum levels give more accurate values than evening or midday levels, since there may be a greater degree of level fluctuation during the day with sustained-release preparations. Fluctuation seems to be minimal through the night, so it may be a good idea to draw nadir levels prior to the AM dose to get a more useful evaluation, making sure the sampling time is noted on the sample tube, and if possible, its relationship to the last dose. If the patient missed a dose just prior to sampling, it is difficult if not impossible to interpret the value, and further, it may lead to the false conclusion that the patient needs more drug, resulting in intoxication.

Dosage Recommendations

In times past, dosing was done rather crudely. Improvements were made in the early 1970s, when recommendations for maintenance dosage were established at 0.9 to 1 mg/kg/hr of aminophylline. After using this approach for several

TABLE 5
AMINOPHYLLINE DOSAGE FOR PATIENTS
NOT CURRENTLY RECEIVING THEOPHYLLINE

Group	Loading Dose*	Maintenance Dose
Children 6 months to 9 years	6 mg/kg† (5)	1.0 mg/kg/hr† (0.85)
Children age 9-16 and young adult smokers	6 mg/kg† (5)	0.8 mg/kg/hr† (0.7)
Otherwise healthy nonsmoking adults	6 mg/kg† (5)	0.5 mg/kg/hr† (0.43)
Older patients and patients with cor pulmonale	6 mg/kg† (5)	0.3 mg/kg/hr† (0.26)
Patients with congestive heart failure, liver disease	6 mg/kg† (5)	0.1-0.2 mg/kg/hr† (0.1)

*Based on estimated lean (ideal) body weight.

†Equivalent anhydrous theophylline dose indicated in parentheses.

months, approximately 30% of the treated patients became intoxicated. Over the last six to eight years we have become aware of the risk problems identified today. The incidence of intoxication is greatly reduced now, with the recommended dosage decreased by as much as five to ninefold over what we prescribed only five years ago. The February 1980 FDA Drug Bulletin (Table 5) and other sources have carried tables and charts summarizing dosage suggestions, which has widely reduced the incidence of intoxication.^{10,11}

Subtherapeutic Level: What is the appropriate response to a subtherapeutic serum level in a symptomatic patient? It is obviously to increase the concentration in a safe manner. One quick way of doing this is to remember that in the therapeutic range there is a linear relationship between dose and serum concentration. In a patient whose steady state concentration is 10 µg/ml on a 45 mg/hr dose of aminophylline, the dosage required to achieve a desired 15 µg/ml level can be determined by establishing a new dose/concentration ratio equal to the existing one. Solving for "new dose" will enable the physician to determine the new dosage with a fair degree of accuracy. Though these linear relationships are true in the therapeutic ranges, they are not dependable in intoxicated patients. Tables compiling dosage adjustment recommendations have been published.^{12,13}

Toxicity: Not everyone who is intoxicated becomes nauseated. Of intoxicated patients, only

about 30% demonstrate nausea before more serious symptoms. Fortunately, seizures are encountered infrequently and are usually associated with levels over 40 µg/ml, though patients occasionally have seizures from standard doses. In one report,¹⁴ eight patients had seizures on "conventional" doses; four of them died. The "conventional" doses ranged up to 51 mg/kg/day. This was in 1975, before the advent of specific dosage adjustment recommendations. The dose of 51 mg/kg/day amounts to about 2 mg/kg/hr of aminophylline, certainly aggressive therapy by current standards.

Management of Seizures: How should convulsions be treated? Anticonvulsants are indicated and charcoal-hemoperfusion appears to be the most effective way to remove theophylline. It is not, however, a benign treatment approach.

Proprietary Preparations: Do not become confused by all the theophylline-containing proprietary drugs on the market. Though the controlled drug environment in our medical center hospitals, with their formulary systems of drug use and control, limits your exposure here to these products, in the private sector one is bombarded with literature on scores of theophylline preparations. Each pharmaceutical company is obviously trying to promote its own product as the premier agent. My advice would be, based on the literature, to choose one or two good anhydrous theophylline preparations, gain experience with their use, and try not to deviate from them. Experimenting can be problematical because bioavailability in the various products is substantially different.¹²

Summary

In summary, let us look at the overall approach to using IV and oral theophylline. After an IV load of 5.6 mg/kg of aminophylline administered over 20 minutes, the decision is made, based on the underlying pathology, and therapeutic response as to what maintenance dose is appropriate. With underlying congestive heart failure, for example, a maintenance dose of 0.5 mg/kg/hr may be chosen, and the patient is maintained at this particular dose by constant IV infusion. Assuming a good response, acceptable levels, and a tolerant patient, the switch to an oral form can be made. The bioavailability ratio of aminophylline to theophylline is 0.8; in other words, aminophylline is 80% theophylline, and 1 gm of aminophylline is equal to 800 mg of theophylline. Understanding this relationship, 80% of the hourly aminophylline infusion dose deter-

mines the hourly oral equivalence of theophylline. If it is determined that a 12-hour sustained product is to be prescribed for maintenance, 12 times the calculated hourly rate for oral theophylline yields the size of the tablet required. (Example: 62 mg/hr IV aminophylline $\times$ 0.8 = 50 mg/hr theophylline, then 50 mg/hr $\times$ 12 hours = 600 mg orally every 12 hours.)

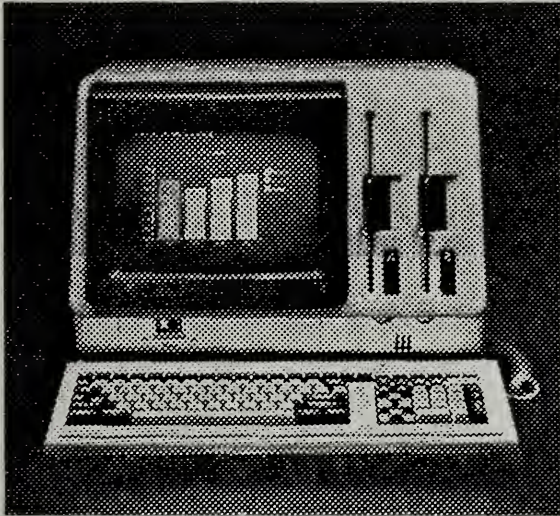
It must be kept in mind that theophylline is extremely toxic and must be given accordingly. If a patient at steady state with a level in the therapeutic range is inadvertently given a dose of 1 to 2 gm parenterally in a small volume over a short period of time, some degree of intoxication is inevitable. To avoid this problem, it is best to order the IV drug in multiple small doses rather than large, potentially toxic quantities of drug in small volumes of diluent, i.e., 250 mg in 50 cc D5W rather than 1.25 gm in 250 cc. Though in these examples the concentration is the same, and many would rest in the assurance that the infusion pump will control overdosage, our experience includes three instances within the last year of pump malfunction with uncontrolled and unplanned rapid administration of drugs.

In conclusion, drug concentration must always be interpreted in the full light of the patient's clinical state. In other words, "don't treat the laboratory; treat the patient." An excellent review¹⁵ of this subject has recently been published, and I recommend it highly as an excellent resource on the use of theophylline in your practice.

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Hypertension in the Elderly

WILLIAM B. APPLGATE, M.D. and JON MANN, M.D.

As human beings age, there are certain changes in the cardiovascular and renal systems that affect blood pressure. First, the elasticity of the large arteries declines with age because of an increased prevalence of atherosclerosis and because there is a decline in the elasticity of the arterial walls. Second, older persons have greater difficulty in excreting a given salt load, probably because with age there is a decline in renal blood flow and in the number of nephrons. Since the vascular system becomes more rigid, systolic blood pressure continues to rise with age, and there is an increasing prevalence of isolated systolic hypertension and an increase in the difficulty of normalizing systolic blood pressure in persons who have elevations of both systolic and diastolic pressure. Epidemiologic studies indicate that systolic blood pressure is at least as important as diastolic blood pressure in predicting future cerebrovascular and cardiovascular mortality at any age. Increase in both systolic and diastolic pressure levels are important risk factors for cardiovascular disease in the elderly.¹

Although hypertension is a risk factor in the elderly, most of the treatment trials in hypertension to date have not included enough older persons to allow us to make many definitive statements about hypertension in the elderly. Currently available data clearly indicate that the treatment of diastolic hypertension (DBP > 90-95 mm Hg) in persons under age 69 reduces cardiovascular and cerebrovascular disease.^{2,3} Unfortunately, we also know that the very elderly (over 75 years of age) are particularly susceptible to toxicity from antihypertensive therapy. For instance, the elderly have a decrease in sensitivity of the baroreceptor reflex, and even if apparently healthy are more likely to develop postural hy-

potension when treated. Also, older persons are more likely to develop depression or alteration of mental status on many antihypertensives which affect the central nervous system. Confusion in these patients is probably not related to a decline in cerebral blood flow unless the systolic or diastolic pressure levels drop substantially.

As a general rule, we favor treating hypertension in the elderly if the average pressures on three visits exceeds 160 mm Hg systolic or 95 to 100 mm Hg diastolic. Elderly persons with borderline elevation of pressure approaching these levels should simply be treated conservatively with salt and, where possible, weight reduction, and should be followed. Isolated systolic hypertension should be treated if systolic pressures constantly exceed 160 to 165 mm Hg, but therapy should not be excessively vigorous and should proceed no further than a step II drug.⁴ Recent studies indicate that low doses of a diuretic, 25 mg of hydrochlorothiazide or its equivalent per day, should be the favored step I drug for the elderly. Doses of diuretics should not exceed 50 mg of hydrochlorothiazide or its equivalent per day. Current data do not allow us to state which step II drug is preferred, but starting doses of any centrally active step II drug should be reduced by half from the starting dose for a middle-aged adult. The desirable lowering of either systolic or diastolic pressures is controversial, but in the elderly, a modest reduction to just below 160/95 mm Hg should be sufficient. If substantial side-effects develop, the medication should be reduced or discontinued.

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EKG of the Month

W. BARTON CAMPBELL, M.D.

A 56-year-old man was admitted elsewhere following onset of nausea, diaphoresis, and severe substernal pain radiating to his jaw. His father and two brothers had ischemic heart disease. He had smoked two packs of cigarettes daily; he had taken 40 units NPH insulin daily for five years and has recently been taking Diazide and clonidine 0.1 mg daily. Because he had frequent premature ventricular contractions, a lidocaine drip was started. His serum creatine kinase rose to 3,400 over the first 24 hours of hospitalization and he was transferred to St. Thomas Hospital for further evaluation. At the time of admission, blood pressure was 114/76 mm Hg. There were basilar rales and he had an S₃ gallop without murmurs. An electrocardiogram was obtained (Fig. 1).

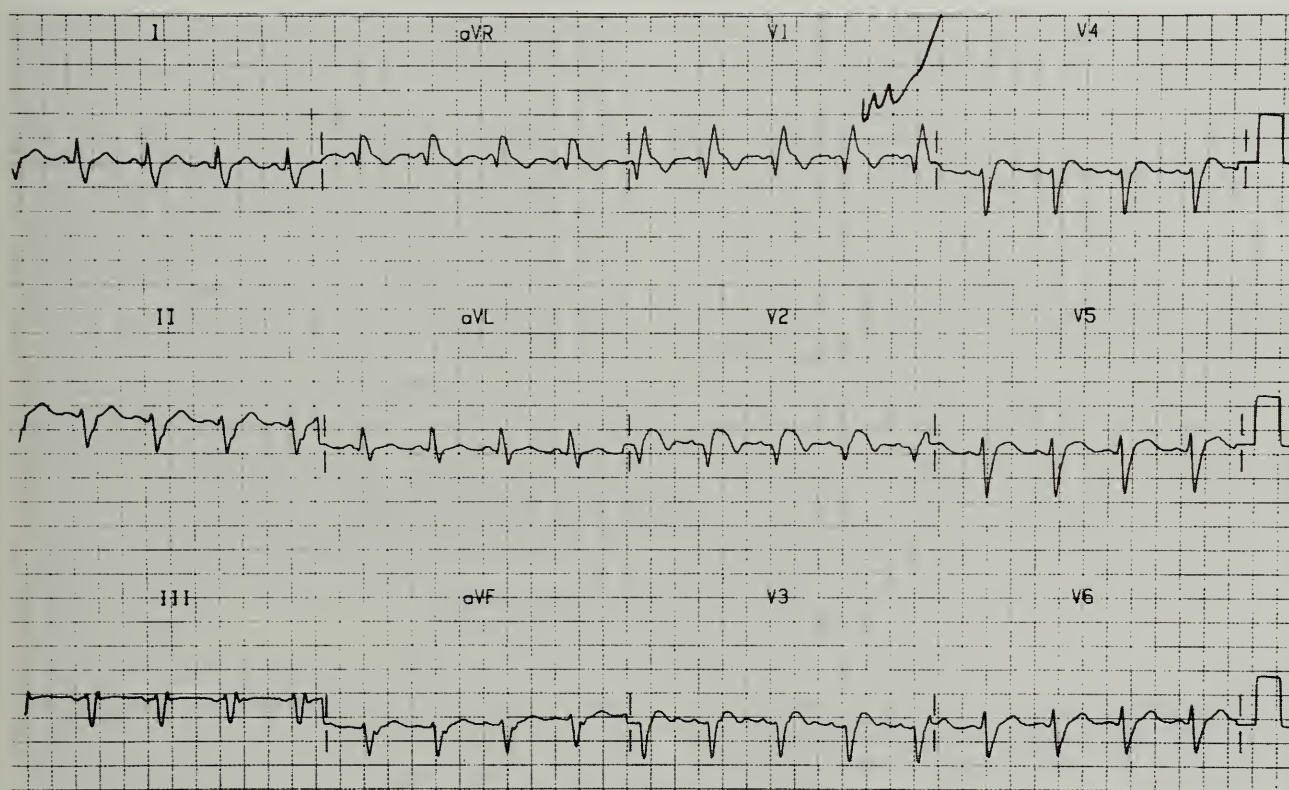


Figure 1

Discussion

This tracing shows sinus tachycardia at a rate of 105/min. The QRS duration is notably prolonged to 140 msec (0.14 second). The late QRS forces are rightward and anterior, inscribing an S in standard lead I and an R in V₁. This delayed intraventricular conduction with late rightward and anterior forces is due to right bundle branch

block.

The early (unblocked) QRS forces rotate leftward (counterclockwise) in the frontal plane,* causing an early prominent S wave in standard lead II (while the R wave in standard lead I is still present). The R in aVL is taller than the R in I. These early forces in the frontal plane are leftward and superior prior to the late rightward forces caused by the right bundle branch block. (The rightward and anterior late forces of right bundle branch block usually appear 50 to 60 msec [0.05 to 0.06 sec] after onset of the QRS complex.) This leftward superior rotation of the forces

From the Department of Cardiology, St Thomas Hospital, Box 380, Nashville, TN 37202.

*The frontal plane (projection of electrocardiographic changes as viewed from the front of the body) is evaluated by the standard limb leads and augmented leads.

is due to "anterior hemiblock" (abnormal delay of conduction through the anterior radiation of the ventricular conduction system).

In the horizontal plane (leads V_1 through V_6) prominent Q waves are present in the right precordial leads V_1 through V_3 . There is J point elevation in V_1 and V_2 with T wave inversion in these leads. These changes are characteristic of an evolving anterior myocardial infarction. The combination of right bundle branch block and anterior hemiblock is commonly referred to as "bifascicular block." In this patient the PR interval is not prolonged.

Acute myocardial infarction with new onset of bundle branch block or bifascicular block is associated with significantly increased mortality.¹ Indications for intracardiac pacing in this group have been controversial. Although many studies have reported no improvement in survival of paced patients as the majority of these patients die due to extensive loss of myocardium,^{2,3} more recent studies suggest that patients with acute myocardial infarction and bifascicular block of new or indeterminate onset (regardless of the presence of accompanying first degree AV block) have somewhat improved survival with intracardiac pacing.⁴ Studies of the His bundle may be

of limited value in making this decision.⁵

We placed a balloon flotation catheter percutaneously in this patient's pulmonary artery.⁶ The catheter has ventricular electrodes located 18.5 and 19.5 cm from the tip, which by making a large loop of the catheter within the ventricle were placed in contact with the right ventricular endocardium until satisfactory pacing was obtained. The patient was monitored over the next four days. Bifascicular block resolved and the catheter was subsequently removed.

DIAGNOSIS: (1) Anterior myocardial infarction-evolving; (2) left anterior hemiblock; (3) right bundle branch block.

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PENINSULA HOSPITAL

Louisville, Tennessee

Peninsula Hospital is a 75-bed private psychiatric hospital, providing treatment for acute emotional disturbances, drug and alcohol abuse, for both adolescents and adults.

Peninsula is fully accredited by the Joint Commission on Accreditation of Hospitals and is a member of the American Hospital Association, Tennessee Hospital Association, Federation of American Hospitals and the National Association of Private Psychiatric Hospitals.

The Professional Staff is composed of psychiatrists, licensed clinical psychologists, psychiatric social workers, psychiatric registered nurses, adjunctive therapists, and mental health workers. This experienced team, together with ancillary hospital workers, provides a dynamic treatment program designed for each individual to bring about change and emotional growth in the patient.

Peninsula provides a special treatment program for alcoholic and drug abuse patients. Another program is designed specifically for adolescents. The adolescent treatment program includes a fully staffed school program. An

individual education plan is designed for each adolescent.

A variety of therapeutic programs are scheduled for each patient's day. These include intensive individual psychotherapy, group psychotherapy, community meetings with staff and many collateral activities.

Patients may be referred to Peninsula by their own physician, former patients, or may be self-referred. Voluntary patients as well as those who are directed to the hospital by a court are accepted for treatment. It is desirable for the hospital to receive information from physicians, therapists, family and friends who know the patient. Treatment is individualized based upon the needs of the patient.

Appointments for admission can be made by calling the hospital directly. The phone numbers are:

Knoxville
Maryville

573-7913
983-8216

What Is a Chief Medical Officer?

FREDIA S. WADLEY, M.D., MSHPA

Within the Tennessee Department of Health and Environment a new species has been born. This new animal, a Chief Medical Officer or State Health Officer, has been bred in other states, but Public Chapter 219 encouraged the evolution of such a species in Tennessee when it eliminated a medical degree as a requirement of anyone serving as Commissioner of Health and Environment. The next obvious step was to create an effective mechanism whereby medical knowledge could be utilized for health planning and developing health policies.

You are probably beginning to recognize that the position of Chief Medical Officer did not arise by spontaneous mutation but was the result of a slowly evolving, and definitely planned, process. First, the Tennessee Medical Association established a committee to search for candidates and interview applicants. This group submitted the names of three acceptable candidates to Commissioner James E. Word who would make the final selection.

Even during this gestational stage, concern was growing over the strength and availability of this new critter once it was birthed. The Tennessee public health physicians presented to Commissioner Word a list of duties and responsibilities that they believed a Chief Medical Officer should undertake. Commissioner Word was in total agreement with these recommendations and also sought comment from several health officers of the Department during the final selection process. Below are the agreed upon duties and responsibilities of the Chief Medical Officer:

1. To maintain a high level of knowledge relative to Public Health, preventive medicine, and the programs of the Department of Health and Environment in order to advise the Commissioner in all areas where

medical expertise is required and/or beneficial.

2. To assist in developing policies that involve health services; to make known the implications of such policies on clients, various health disciplines within the Department, other health providers, agencies, the local community, etc.; to present the viewpoint of other public health and private physicians on these issues.
3. To have a general knowledge of all programs of the Department in order to provide appropriate input into early planning when new programs are being developed and existing programs are being changed.
4. To promote the highest level of health services in all 95 counties.
5. To support the medical director of the Bureau of Health Services in recruiting and maintaining qualified and highly competent physicians for all levels of the Department; to have as a goal the recruitment of enough physicians to accept the medical administrative, clinical, regulatory and legal responsibilities delegated to county health officers.
6. When there is no county, district, regional, or bureau physician, to serve in a legal "backup" capacity in his absence; the Chief Medical Officer will provide such backup services as needed of a physician and as deemed appropriate.
7. To maintain a strong workshop relationship with:
 - a. Tennessee Medical Association, serving as an active member and as its liaison with the Department.
 - b. Private health providers, involving them appropriately in the planning of new programs as well as keeping them informed of our program policies and

From the Tennessee Department of Health and Environment, Nashville.

services.

- c. Legislators, promoting the philosophy of the Department as it relates to health/medical issues.
 - d. Local, regional and central office staff, appropriately representing the interests of each group, program, and discipline when programs are planned and problems arise.
8. To accept "any of the powers, duties, responsibilities, or authorities vested in the Commissioner which require or imply that the Commissioner is a licensed physician" (TCA 68-1-102) and which are delegated by the Commissioner.

On Jan. 3, 1984, I arrived on the scene in Nashville as the Chief Medical Officer after having received an equal number of congratulations and condolences. Beginning work was almost anticlimactic after the excitement of determining what and who was to be the Chief Medical Officer. It seems I hit the ground running and may soon have to trade my Nikes for a Schwinn just to keep pace.

One thing that presently deserves and receives a significant portion of my time is the Healthy

Children Initiative, which is one of Governor Alexander's top three initiatives this year. This has given me the opportunity to discuss with many physicians across the state the concept of establishing a medical home with private physicians for as many children as possible between birth and 6 years of age. The enthusiasm and support for this concept has given me great optimism about what our collaboration can accomplish for the children of Tennessee.

This is probably more than you ever wanted to know about the Chief Medical Officer, but now that you have all this invaluable information, the ball is in your court. I have already heard from several physicians who wanted assistance in getting something clarified, changed, or charred. Although I will not be able to resolve all your problems or eliminate all your concerns, I still need to hear from you if I am to properly perform the duties and responsibilities listed above.

Commissioner Word and I are committed to resolving health and environmental problems in Tennessee, committed to working with the private health sector on problems, and committed to making the role of Chief Medical Officer work.

What makes these small towns big in medicine? Baptist Memorial Health Care System is there.

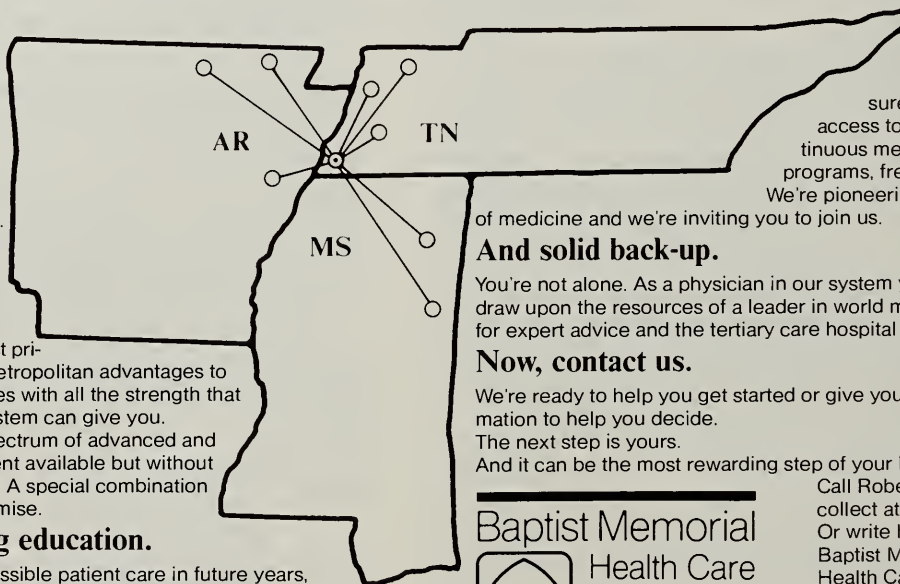
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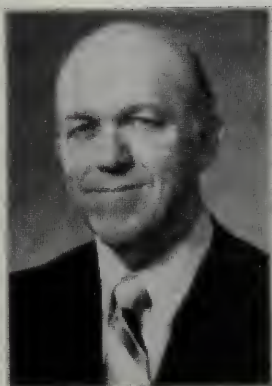
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And it can be the most rewarding step of your life.

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A Leader in World Medicine



NAT E. HYDER, JR.

To the Members of TMA . . .

I want to thank the membership of the Tennessee Medical Association for the privilege of serving as your President this past year. I want you to know that the TMA is a great organization whose leaders from across the state are dedicated men and women doing an outstanding job in representing, in truth, all the physicians of Tennessee. The minority of physicians who do not belong to the TMA should be made aware that they not only are missing opportunities to serve, but are shirking a professional responsibility.

Leadership in our great profession is exhibited daily in many ways; by interfacing with the legislature, politicians (state and national), the press, medical educators, health care coalitions and others. I thought that the talk at our recent TMA leadership conference by the speaker pro tem of the Indiana State Senate "Have You Paid Your Dues Lately?" expressed well what should be done by all physicians in view of the current restructuring of the health care delivery system for the public good.

We are most fortunate to have a very active and enthusiastic Auxiliary which has contributed so much in so many ways over the years in support of the profession of medicine for the good of the citizens of Tennessee.

I would like to echo the sentiments expressed by my good friend, Allen Edmonson, in his last President's Page as President of the TMA. It has been a good feeling to represent you as the President of TMA. It was also a good feeling to follow George Holcomb as your President and it is a good feeling to know that Tommy Ballard, with his vast experience and outstanding capabilities, will pick up the reins to lead TMA in the difficult yet opportune times ahead.

N E Hyder Jr MD

THE NEW PRESIDENT



THOMAS K. BALLARD, M.D.
JACKSON

THOMAS K. BALLARD, M.D.

130th President—Tennessee Medical Association

No physician in Tennessee is more genuinely respected and appreciated by both his colleagues and the public than is the new President of the Tennessee Medical Association, Thomas Kelly Ballard, M.D., Jackson family physician.

By the same token, no professional association could be guided during its next challenging year by more capable hands than those of TMA's 130th President.

Dr. Ballard, born October 28, 1919, in St. Joe, Texas, graduated from Jackson High School in 1936 and received his bachelor of science degree in biology from Union University in Jackson in 1940. He received his doctor of medicine degree from the University of Tennessee College of Medicine in Memphis in 1949 and did a one-year internship at Baptist Memorial Hospital of Memphis. He returned to Jackson to practice medicine in 1950, serving as City Physician of Jackson until 1958.

He served in the Tennessee National Guard from 1937 to 1940, then with the U.S. Army in the United States and in the Mediterranean Theatre of Operations and European Theatre of Operations from 1940 to 1946, being discharged as a major. From 1946 to 1965, he served in various command positions with the U.S. Army reserve and was discharged as a colonel from the Medical Corps.

Dr. Ballard has been a member of the TMA House of Delegates since 1966. He was President of the Consolidated Medical Assembly of West Tennessee in 1970 and has been a member of its House of Delegates since 1960. He has been chairman of the TMA Interprofessional Liaison Committee since 1975, served on the TMA Board of Trustees from 1971 to 1974, and has been a member of the Board of Directors of Independent Medicine's Political Action Committee/Tennessee (IMPACT) since 1979.

From 1975 to 1978, Dr. Ballard served as a TMA alternate delegate to the American Medical Association and in 1979 was named delegate to the AMA.

Since 1955, he has been a member of the Tennessee Academy of Family Physicians, serving on its Board of Directors since 1960. He was President of the Academy in 1978-79. In 1975, he was honored by the Academy as its Family Physician of the Year. He is a Charter Fellow of the American Academy of Family Physicians and has been an alternate delegate to that Academy from Tennessee since 1976.

Dr. Ballard was a founding member of the 17-county West Tennessee Health Improvement Association, and he has served on the Board of Directors of the Mid-South Foundation for Medical Care since 1977. He was a member and chairman of the Public Health Council from 1972 to 1975. Since 1962, he has been a member of the National Association of Medical Examiners and has served as Madison County Medical Examiner since 1962. He has been Madison County's Coroner since 1972.

Dr. Ballard has served as an associate director of the Family Practice Residency Program in Jackson since 1974, and he has been on the staff of Jackson-Madison County General Hospital since 1950, having served as chief of staff in 1966.

His civic endeavors have been equally extensive with prominent service to a number of civic organizations. Throughout the years, he has been an active leader of the Lambuth Memorial United Methodist Church of Jackson.

Dr. Ballard married the former Mary Frances Bond of Jackson on March 24, 1942. They have two daughters, Connie and Becky, and a son, Thomas K. Ballard, III, and five grandchildren. His son is a medical student of the University of Tennessee Center for the Health Sciences in Memphis.

Since its founding in 1830, the Tennessee Medical Association has had no President more qualified for this prestigious office than Thomas Kelly Ballard, M.D. The membership looks forward to benefiting from his leadership as we face medicine's many challenges in the coming year.

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APRIL, 1984

editorials

Cave Ne Cadas

The capitalistic system is based, at least theoretically, on the economic primacy of the marketplace, and any deviation therefrom is socialistic in its derivation. Recognizing that human nature, seeking security above all else, is willing to surrender even its freedom, our founding fathers framed the Constitution in such a way as to protect the citizen from encroaching interference by government. Ever since then that restriction of governmental powers has been progressively eroded, not so much by grasping politicians as by

their timid constituents. Statute has piled upon statute to protect the citizen from everything from highwaymen to Ma Bell, frequently to the harm of the electorate, who want freedom for themselves individually but regulation of all who would threaten not only their security but their personal economy and pursuit of happiness, whatever their definition of them. Under progressively socialistic administrations nearly everything became regulated through a plethora of federal agencies.

Mr. Ronald Reagan gained the support of all lovers of free enterprise by championing their cause, and indeed this had no little to do with his election. Though many industries have been deregulated, to be sure, the administration has been choosy about its targets, and has found it necessary in the deregulation of society generally, to clamp its fingers firmly about the windpipe of certain segments of the economy, among them what is referred to, correctly or not, as the "health care industry."

One of the ways in which it was envisioned that the public would be best served would be to inject competition into the industry, since, according to Capitol Hill, present and past, none existed. The fight, however, might be likened to that between the lions and the unarmed Christians in Nero's Rome. Irrespective of disclaimers, the competition is largely between existing entities, which are now sorely hampered by newly imposed regulations, and the federal government through its agencies, which apply their regulations unequally. As always happens when government gains the upper hand, which it has had in this country through most of this century, although there are various short-term losers, the ultimate loser is the public itself.

In its early years, television took its cue from radio, which had incorporated into its code of advertising the now fossilized American sense of fair play and propriety, and did not allow an advertiser to belittle the competition. Such tactics were relegated to such lowlife as professional wrestlers and so on. If any rules at all govern competition now, I am not aware of them, as it appears any advertiser will try to get away with whatever he can get away with—one of the reasons, I presume, that the electorate feels in need of governmental succor.

For various reasons that I shall not elaborate on here, the Prospective Payment System (PPS) for patient care, commonly, though incorrectly, referred to as DRGs (diagnosis related groups—

the basis for the PPS) has engendered intense competition among hospitals for patients, especially patients of certain kinds (those that will fill up their beds but will not require much specialized care, complex technology, or expensive therapy). The competition has become a no-holds-barred contest, one that recognizes no ethics or rules of man or God. For instance, a rumor was started from a source that I will allow to remain nameless that a proprietary hospital in Nashville was on the verge of closing down because of a low census, when in fact the hospital had just that day opened its last new floor because its occupancy was exceeding 90%. Through subterfuge, a local newspaper persuaded another hospital to empty its overflowing, noisy admitting office waiting room to allay the confusion so the photographer could allegedly make a close-up shot of a single patient being admitted. What appeared in the newspaper was a wide-angle view of an empty waiting room, with a caption implying that current governmental activities had so succeeded in stemming the flow of unnecessary medical care that this hospital was in dire straits. That particular hospital was then and still is operating at near capacity. Other scurrilous attacks have been engendered, and are increasing, between hospitals, particularly by the so-called "non-profit" against the proprietary ones.

It would be pointless to dignify these activities by their recognition were it not for the danger, even likelihood, that physicians will become embroiled in the controversies. The competition among hospitals for patients is paralleled only by their competition for doctors, especially those who play by the rules, even though the hospitals themselves recognize none. There is an ever-present danger that the government's emphasis on the business aspects of our calling will change us from physicians to entrepreneurs, eroding our sense of duty and our dedication to service. Constant vigilance will be required to combat it, and the need for vigilance seems due to increase as the competition intensifies. Though it has some aspects of both, medicine is neither a game nor a business. It is a profession, no matter how much others seek to denigrate it. If we forget that, everyone will suffer—physicians, patients, hospitals, and the public at large.

The title of this piece is translated, "Take care you do not fall." It means, "Beware of falling from your high position." He that hath ears to hear, let him hear.

J.B.T.

On Losers and Winners

For millions of really good athletes in the world, the chance of capturing Olympic gold is vanishingly small. The chance of even being chosen to compete is not a whole lot better. Of those who are chosen, it is not necessarily the one who is usually the best, but the one who is best at that particular moment who walks away with the medal. The Olympic games measure winning in hundredths of a second; in the 17 km cross country ski race in 1980 at Lake Placid, for example, the difference in running times of the gold and silver medalists was 0.01 second. This means, of course, that vast armies of truly great athletes never scratch, since for one reason or another on that particular day they were not *the* best—maybe just because they were not at *their* best.

In a brief special feature preceding the 1984 running of the women's giant slalom in Sarajevo, one of that army of previous losers was touted as a contender for the gold medal this year. In the background, while taped reruns of the feats in earlier competition of acknowledged team leader Cindy Nelson were being shown, we heard a song that proclaimed, "Everybody loves a winner, so nobody loves me." The song went on to announce that *this* time it would be different—I will win, it said, and then *everybody* will love me. During her relatively long career, though plagued by injuries, in the two previous Winter Olympic Games Cindy has managed to walk away with a silver and a bronze medal in the event—not at all a bad showing, and certainly not one that would number her among the great all time losers. Other than to create a spectacle, then, the network's choice of background music was inappropriate, and in fact entirely misses the spirit of the games, in which the glory is first in competing at one's very best, and only secondarily in winning, since almost everybody must lose before the competition ends.

In what has to have been her last Olympic race, Cindy Nelson lost again; this time all the medals eluded her. But although I certainly cannot speak for one who has so avidly pursued the gold, perhaps something even better happened for her.

Each of us views the world from the shoulders of those who have preceded us, and it is the fondest hope of every one of us who has been a teacher—and this includes every parent—that our efforts will continue to elevate the platform from which mankind operates—that the pupil will out-

shine and outdistance the master. Cindy Nelson must be no exception. For several years now she has worked with Debbie Armstrong, a young skier just 20 years old, polishing Debbie's technique and by example instilling into her the drive, stamina, and courage that mark the Olympic competitor. Though not considered a contender for a medal this year, Cindy's protege awoke on the morning of February 13, 1984 believing that it was *her* day. It was.

Debbie Armstrong won the Olympic gold medal in the women's giant slalom. Surely, then, *somebody* loves that three time loser, Cindy Nelson, and just maybe for Cindy Nelson that is something as good as gold.

J.B.T.



Bryce C. Anderson, Sr., age 31. Died January 26, 1984. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

J. Vivian Gibbs, age 67. Died February 8, 1984. Graduate of Northwestern University Medical School. Member of Knoxville Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BRADLEY COUNTY MEDICAL SOCIETY

Ronald S. Coleman, M.D., Cleveland
Daniel B. Vance, M.D., Cleveland

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Guy F. Fain, M.D., Hixson

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

John T. Matthews, M.D., Jackson

DICKSON COUNTY MEDICAL SOCIETY

Roger T. Swanson, M.D., Dickson

GREENE COUNTY MEDICAL SOCIETY

Thomas A. Collins, M.D., Greeneville

KNOXVILLE ACADEMY OF MEDICINE

Paul D. Baker, Jr., M.D., Knoxville
Robert G. Demers, M.D., Knoxville
William M. Law, Jr., M.D., Knoxville

LAKEWAY COUNTY MEDICAL SOCIETY

Pierre Paul Gagnon, M.D., Morristown

LINCOLN COUNTY MEDICAL SOCIETY

Joseph F. Ralston, Jr., M.D., Fayetteville

MAURY COUNTY MEDICAL SOCIETY

W. Robert Stewart, Jr., M.D., Columbia

MONTGOMERY COUNTY MEDICAL SOCIETY

Robert O. Begtrup, M.D., Clarksville

NORTHWEST TENNESSEE

ACADEMY OF MEDICINE

James O. Shaw, M.D., Union City

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

Richard L. Schultz, M.D., Oak Ridge

RUTHERFORD COUNTY MEDICAL SOCIETY

J. Daniel Rudd, M.D., Murfreesboro

TIPTON COUNTY MEDICAL SOCIETY

Jimmie L. Beasley, M.D., Covington
Samuel L. Broffitt, M.D., Covington
John E. Cantrell, M.D., Covington
John R. Janovich, M.D., Covington
William K. Lara, M.D., Covington

personal news

Robert Berglund, M.D., has been elected chief of staff at Parkridge Hospital in Chattanooga. Other officers elected include *Leonard Carroll, M.D.*, vice chief of staff; and *Pete Soteres, M.D.*, secretary-treasurer.

Arthur Bishop, Jr., M.D., has been elected chief of staff at Fort Sanders Regional Medical Center in Knoxville for 1984. Other officers elected were *Dean Conley, M.D.*, chief of staff-elect; and *Richard Brinner, M.D.*, secretary.

D. J. Canale, M.D., has been elected chief of staff at Methodist Hospitals of Memphis. Other officers elected include *William Mitchum, M.D.*, president; *Irvin Fleming, M.D.*, vice president; *Charles White, M.D.*, secretary.

William W. Cloud, M.D., has been elected chief of staff at St. Mary's Medical Center in Knoxville.

Charles E. Couch, M.D., Memphis, has been reappointed by Gov. Lamar Alexander to a five-year term on the Tennessee Aeronautics Commission.

Kent E. Latham, M.D., has been elected chief of staff for 1984 at Baptist Hospital in Knoxville. Other officers elected include *Joe Luna, M.D.*, vice chief of staff; and *Thomas Miller, M.D.*, secretary.

The following TMA members have been initiated as Fellows of the American College of Surgeons: *Thomas LaVerne Lawrence, M.D.*, Cookeville; *Michael Tepe-dino, M.D.*, Fayetteville; *Jesus Ortiz Torpoco, M.D.*, Memphis; *John T. VanDyck, M.D.*, Paris; and *Charles T. Womack, III, M.D.*, Cookeville.

The following TMA members have been initiated as Fellows of the American Academy of Orthopedic Surgeons: *Shannon R. Curtis, M.D.*, Franklin; *E. Ray Lowery, Jr., M.D.*, Murfreesboro; *Wayne L. Mc-Lemore, M.D.*, Morristown; and *Alan Odom, M.D.*, Chattanooga.

TMA Members Receive AMA Physician's Recognition Award

Twenty-eight TMA members qualified for the AMA Physician's Recognition Award during January 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period: 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA

Irshad A. Ahmad, M.D., Johnson City
John J. Bandeian, M.D., Bristol
James B. Bell, M.D., Seymour
Robert B. Callahan, M.D., Chattanooga
John E. Chapman, M.D., Nashville
Douglas C. Cobble, M.D., Greeneville
Charles E. Darling, Jr., M.D., Oak Ridge
Thomas R. Duncan, M.D., Columbia
Joseph H. Fishbein, M.D., Nashville
Frederick M. Furr, M.D., Knoxville
Jeffrey W. Gefter, M.D., Chattanooga
Roger L. Jackman, M.D., Lebanon
Sherman E. Kahn, M.D., Memphis
William S. Keane, M.D., Nashville
Jeffrey A. Lukens, M.D., Nashville
Rogelio R. Martinez, M.D., Nashville
O. Jerry Maynard, M.D., Donelson
Merrill D. Moore, Jr., M.D., Knoxville
James R. Moyers, M.D., Nashville
Lawrence R. Nickell, M.D., Columbia
Amos Okrah, M.D., Memphis
Richard P. Ownbey, M.D., Nashville
Robert L. Pettus, Jr., M.D., Madison
Diane Pincus, M.D., Antioch
Burton Silbert, M.D., Nashville
John B. Standridge, M.D., Cleveland
Mary E. Thompson Stroud, M.D.,
Chattanooga
David S. Warner, M.D., Nashville

national news

From the AMA's Office in Washington, D.C.

New Lease on Medicare's Life?

The predicted bankruptcy by 1990 in the Medicare hospital trust fund may be held at bay for a few years past that time if some recent improvements in the status of the fund hold up.

The new projections from the Congressional Budget Office (CBO) were issued along with another CBO report on the federal deficit, however, which projects that Medicare and Medicaid will consume 3% of the gross national product by 1990 and suggests options for holding down Medicare spending. In addition to a Medicare fee freeze or fee schedules, the alternatives include freezing surgical fees or restricting fees for physician services in the hospital to the fee that would have been charged if the service had been done on an outpatient basis.

As recently as last November, CBO had estimated that the Medicare hospital fund would be down to \$8 billion in 1989. Now, CBO says that the fund is likely to show a balance of \$30 billion in 1989. Bankruptcy is not projected until an unspecified date in the "early 1990s."

PRO Regulations, Finally

Final regulations needed to open the bidding process for Medicare's new review system were published by the government in late February.

Medicare officials say that will give them plenty of time to get the new peer review organizations (PROs) up and running before the Oct. 1 deadline imposed by law. But the architect of the law and physicians who will be called upon to work under it contend that administration footdragging has jeopardized physician participation in the reviews and threatened the credibility of Medicare's prospective pricing system.

Physicians and Seniors Groups Building New Ties

Despite some very real differences of opinion, physicians and the nation's elderly appear lately to be moving toward serious reconciliatory efforts.

A warming of relations between organizations representing the two groups was obvious in recent Senate hearings and at a meeting of the country's largest organization of senior citizens—the American Association of Retired Persons.

The new attitude seems based in part on a belief by

both groups that it will be up to physicians to assure that their elderly patients continue to receive all the care they need under Medicare's diagnosis related groups (DRGs) pricing system.

One signal of possible new cooperation between the two groups came during a Senate Finance Subcommittee investigation into the Reagan administration's implementation of the peer review organizations that are to scrutinize care under the DRGs. Physician members of the American Medical Peer Review Association and the American Medical Association along with AARP representatives all criticized the administration for dragging its feet in issuing the regulations and bids needed to get the PROs underway. All three groups said they want physicians—not insurance companies—to do the review. AARP President-Elect Vita Ostrander complimented the AMA on its interest in the issue.

Repeating similar sentiments a day later at AARP's Legislative Council, Ostrander asked AMA Executive Vice President James Sammons, M.D., whether the AMA "will assist PROs in collecting data on dumping" of patients under DRGs and whether the Association will "extend this commitment to state associations."

The answer, responded Dr. Sammons, is "an unequivocal yes." The AMA "believes strongly" in the PRO effort and has "insisted that the state medical society should be the agency that applies for designation as the PRO" in order to assure that the review process becomes a "quality of care measure" rather than strictly a cost issue. "Clearly there has to be a cost factor," he said, but "we don't want to lose sight of quality."

Pepper Proposes Changes in Medicare

Rep. Claude Pepper (D-FL) thinks hospitals should share their profits or losses under Medicare's new diagnosis related groups. The proposal is part of a five-part plan for solving Medicare's financial problems Pepper outlined on the House floor. Other parts of the plan would clamp down on Medicare's payments to clinical laboratories; freeze hospitals' depreciable value to Medicare; eliminate an intensity growth factor from the formula for increasing DRG payments; and require the establishment of DRGs or related controls on hospital outpatient care.

Finance Budget Deficit Plan

At the behest of Chairman Robert Dole (R-KS), the Senate Finance Committee has begun consideration of a four-year, \$100-billion deficit reduction plan that includes a three-month freeze on fees for all and a two-year freeze on Medicare increases for physicians who choose not to accept 100% of Medicare claims on assignment.

On Feb. 27, AMA Executive Vice President James

H. Sammons, M.D., wrote to Sen. Dole outlining AMA's call for a voluntary fee freeze of one year and asking the committee to reconsider its "participating" physician proposal until physicians could show that a voluntary effort would work.

The eventual enactment of the plan of any of the Senate Finance provisions is far from certain, since the committee has stipulated that its deficit-trimming offering is contingent on similar action in other areas, including the defense budget.

About \$1.6 billion of the approximately \$5.5 billion worth of Medicare cuts would come from the physician fee freeze. Similar to one advanced in the committee before Congress recessed last fall, the proposal would affect all physicians for three months. As of April 1, 1984 Medicare's prevailing fees would be rolled back to the June 30, 1983, level and frozen until July 1, 1984.

After that time, the freeze would be discontinued for physicians who signed an annual agreement to assign claims and accept Medicare's allowable fee as payment in full for all services to Medicare patients. Although physicians who refused to sign the agreements could continue to take assignment on a claim by claim basis, their Medicare fees would remain frozen for up to two years, one year at a time.

Another major spending cut proposed for consideration would have eliminated a so-called 1% intensity factor used in calculating permissible increases in Medicare payments to hospitals. A target rate system in effect since 1982 limited annual increases in hospital payments to 1% plus the percentage increase in the cost of the marketbasket of goods and services purchased by hospitals. The marketbasket plus 1% limit was to continue under the new diagnosis related groups system until 1986, after which time the HHS Secretary is to determine increases in DRG payments.

Sen. David Durenberger (R-MN) refused to endorse the committee proposal which would have limited increases in 1985 and 1986 to the marketbasket increase. Instead Durenberger offered a modification which eliminates the 1% intensity factor only in the portion of a hospital's costs reimbursed under the old (pre-DRG) system, for a savings of \$1.1 billion instead of \$2.3 billion over four years.

Other provisions agreed to by the committee include:

- an increase in the Medicare Part B premium each year beginning in 1985 until by 1990 it would equal 35% of the total Part B benefit costs. Premiums would be \$43 per couple per month higher in 1990 than they would have been under current law.

- a delay in the eligibility for Medicare entitlement until the first day of the month following the individual's 65th birthday.

- a provision making Medicare the secondary payer in instances where a Medicare beneficiary is also covered by a working spouse's employer plan.

- establishment of a fee schedule for clinical laboratory services. The fee would be set at 62% of the prevailing charge levels and would apply to hospital outpatient laboratories as well as independent laboratories, although Sen. John Heinz (R-PA) was at press time considering an amendment to further reduce that rate to 60%.

- extension of the current 3% reduction in federal Medicaid payments to states for another three years.

'Baby Doe' Legislation Passes House; Setback Seen to Physician Groups

Opponents of "Baby Doe" legislation suffered a major setback in Congress in February, when the House of Representatives passed legislation to establish treatment requirements for handicapped newborns.

The bill, approved by a large 52-vote margin, redefines child abuse to include withdrawal of nutrition of medically indicated treatment. States must set up procedures to ensure that newborns get proper care and attention in cases of suspected neglect.

States that choose not to comply risk the loss of all child abuse funding. Parents or physicians who do not follow state regulations could be charged with child abuse.

Debate on the bill, described by one House member as "the most personal, gut-wrenching issue we'll face this year," was repeatedly delayed by election-conscious legislators. Once on the floor, however, it won the broad support of all but 30 Republicans, including such key figures as Jack Kemp (R-NY), Henry Hyde (R-IL), and Robert Michel (R-IL).

A last minute attempt to delay Baby Doe provisions from the bill by Rep. Rod D. Chandler (R-WA) and others failed to win support in the House. Because this substitute amendment offered federal assistance and information rather than regulations, it earned the broad-based endorsement of the medical community.

The infant care debate then expanded into an open forum on abortion, euthanasia and other "right-to-life" issues. "The law now says that the pre-born fetus is not human. Should we go the next step and say that the newborn is also not quite human? How about at the other end of life? Can we also make life-or-death decisions for people because, having become senile, they are not quite human, either?" challenged Rep. Hyde.

Countered Chandler: "My philosophy is not that we believe there is anything less human about handicapped infants. Instead we face a situation where we must decide whether there should be unlimited treatment in an attempt to sustain life."

The American Medical Association, the American College of Obstetricians and Gynecologists, and other members of the medical community fear that this legislation will encourage the government to second-guess parental and physician decisions. It may also increase the stress and trauma when an infant is born with life-threatening congenital impairments, without the promise of real benefit in treatment, they say.

Meanwhile in New York, the U.S. Court of Appeals has ruled that the federal law which prohibits discrimination of the handicapped does not apply to treatment decisions of handicapped newborns. Neither the language nor the intent of the law—Section 504 of the federal Rehabilitation Act of 1973—gives the Department of Health and Human Services (HHS) the authority to conduct an investigation based on medical records of Baby Jane Doe, the three-judge panel concluded.

"Congress never contemplated that the Rehabilita-

tion Act would apply to treatment decisions involving defective newborn infants. Until Congress has spoken, it would be an unwarranted exercise of judicial power to approve the type of investigation that has precipitated this lawsuit," the 48-page opinion said.

HHS Budget Hit Hard

The fiscal 1985 budget that President Reagan presented to Congress in February would boost the Health and Human Services (HHS) authority to \$324.8 billion, an after-inflation increase of 5.5%. Under this budget, HHS will spend \$36.3 million an hour in benefits for more than 60 million Americans.

However, the once-skyrocketing rate of HHS growth has declined significantly, falling from an increase of 17.7% in 1981 to 7.5% in 1985. "We are striving to do more with less," explained HHS Secretary Margaret M. Heckler in a press conference.

Major entitlement programs for the elderly, disabled and poor would increase slightly; discretionary programs in disease and drug research would lose support.

In the large entitlement programs, reforms such as DRGs are credited with the slowed spending. In the smaller discretionary programs, no new projects will be undertaken for the remainder of the decade, unless programs of equal cost are eliminated.

"It is vital that we spend wisely," said Secretary Heckler. "We have a role to play in the battle against a higher deficit, increased taxes, and the threat of renewed inflation, which would erode the very benefits we provide to people."

Organ Transplant Bill Opposed by AMA

Congress has unveiled one solution to the organ transplant problem: HR. 4080, the National Organ Transplant Act. It is eyed nervously by members of the medical community, however, who fear it will boost government costs and authority over all medical procedures.

The bill, introduced by Rep. Albert Gore (D-TN), would provide grants for organ procurement organizations and a 24-hour telephone "transplant hotline." It would also provide a data registry of patients who have received transplants.

Furthermore, it would instruct the Department of Health and Human Services (HHS) to set criteria for patient selection, qualifications of transplant personnel, and the facilities where transplants are performed. Unauthorized facilities would receive no Medicare or Medicaid reimbursement.

The bill is strongly opposed by the AMA, which says it would provide new and unprecedented authority to HHS. HHS officials oppose the bill as well.

Senators Turn on DRGs

Flanked by subordinates with boxfuls of briefing materials, HHS Secretary Margaret Heckler set out in a recent appearance before the Senate Budget Committee to defend the President's 1985 budget proposals. Instead, she found herself justifying her Department's implementation of Medicare's new diagnosis related groups (DRGs) payment plan.

The senators' questions reflect criticisms hospitals have been leveling at the new program since its details were first unveiled last fall. They involve the lack of any special adjustment for hospitals treating large numbers of indigent patients, perceived inadequacies in the wage index used to adjust DRG payments for each hospital, and alleged inequities in the assignment of hospitals to either an urban or rural category.

Other areas of concern include the Department's apparent reluctance to approve waivers from the federal DRG plan for certain state rate programs and the need for physician cooperation if the program is to work.

Package Insert on 'Pill' to Change

The patient package insert on oral contraceptives received a facelift in February, reflecting the growing body of information about the dangers and benefits of the pill.

Physicians and the public are unlikely to see these revisions anytime soon, however. Earlier changes, proposed more than two years ago, still languish within the Food and Drug Administration's (FDA) regulatory pipeline. Newer changes proposed at last week's meeting of the FDA Fertility and Maternal Health Drugs Advisory Committee face similar delays.

The new label will omit warnings about breast cancer, included in previous versions. After a review of recent studies, committee members decided that there is insufficient evidence linking the pill with the disease.

It strengthens language about cervical cancer, however. For the first time, it recommends that pill users receive close clinical surveillance, including annual Pap smears.

Other warnings also receive new emphasis. Three high-risk factors—heavy cigarette smoking, over 35 years of age, and conditions such as high blood pressure, obesity, diabetes, and high cholesterol levels—are prominently placed in the insert's opening section. Women are instructed that “as a general principle, no drug should be taken during pregnancy unless it is clearly indicated” and “if possible, do not use oral contraceptives while breast-feeding.”

And for the first time, women are provided with a list of special medical conditions—such as migraine, depression, breast nodules, and gallbladder, heart or kidney disease—that should be brought to the attention of their physicians.

One section, the first of its type to appear in inserts, describes the benefits of using the pill: lighter menstrual cycles, decreased menstrual pain and tension, reduced

risk of fibrocystic breast disease, ovarian cysts, pelvic inflammatory disease, ectopic pregnancy, ovarian cancer, endometrial cancer, and rheumatoid arthritis.

Some new deletions are also conspicuous: the new insert will not caution DES daughters against estrogen use; there is no mention of temporary infertility, increased risk of miscarriage, or “post-pill” symptoms experienced after stopping use; a comparison with alternative forms of birth control is omitted; and women with family histories of diabetes, stroke, and heart attack are no longer advised of possible risk. Several other conditions possibly linked to pill use—myocardial infarction, hemoglobinopathies, and melanoma—have been left off the insert until more information is available.

Cancer Death Rates Declining

The nation's overall death rate for cancer declined between 1950 and 1979, despite a sharp increase in lung and other smoking-related cancers, according to data published in February by the Environmental Protection Agency (EPA) and the National Cancer Institute (NCI).

Excluding lung cancer, death rates for all cancers decreased 5% in white males, 12% in white females, and 13% in nonwhite females. The rates for nonwhite males increased 15%.

In contrast, lung cancer death rates increased 116% in white males, 199% in white females, 185% in nonwhite males and 188% in nonwhite females. There were also increases in deaths from esophageal and laryngeal cancers.

The new data appear in *U.S. Cancer Mortality Rates and Trends: 1950-1979*, a collaborative effort between EPA and NCI. Death rates were based on death certificates received by the U.S. Department of Health and Human Services, National Center for Health Statistics. Rates were computed for 3,065 counties in 49 states.

“The tabulations help identify counties with unusual cancer mortality patterns, which may in turn provide etiologic clues. Similarities between the patterns of cancer and distribution of risk factors are helpful in designating high-risk communities,” said Thomas Mason, M.D., of NCI's Environmental Epidemiology Branch and a co-author of the reference text.

FDA Petition to Halt Use of Two Anti-Inflammatory Drugs

The Food and Drug Administration was petitioned in February to suspend immediately use of the drugs Butazolidin (phenylbutazone) and Tandearil (oxyphenbutazone), due to alleged adverse reactions associated with their use. The petitioner is Health Research Group, a Ralph Nader organization.

Manufacturer Geigy Pharmaceuticals defends its products, saying that their risks are exaggerated and that sudden withdrawal from the market would be “devastating” to physicians and patients.

This unusual request for sudden suspension—granted by FDA once before, in 1977—is justified due to the seriousness of drug reaction, according to Health Research Group. The usual administrative procedure for withdrawing a product takes between six months and several years.

In a February public hearing in Washington, D.C., HRG urged that only controlled distribution of the powerful nonsteroidal anti-inflammatory drugs (NSAIDs) should be permitted. The small number of patients who need the drug could get it by asking their physicians to file an Investigational New Drug Application, according to HRG.

The drugs have caused a total of 3,100 deaths in the United States contends HRG medical director Sidney Wolfe, M.D. Safer and equally effective alternatives exist for virtually all conditions now treated with the drug, he says.

The risks do not exceed those of other NSAIDs, counter manufacturers. The total number of adverse reactions "are neither unexpected nor disproportionate," says Marvin Wetter, M.D., Geigy spokesman. The incidence of deaths resulting from use of Butazolidin and Tandearil is .0006%, lower than that of other NSAIDs Nalfron, Clinoril, and Naprosyn. All nine of the commonly prescribed NSAIDs cause the same reactions as Butazolidin and Tandearil, he contends.

Furthermore, most physicians are familiar with the risks, Wetter adds. "The American medical community is well aware of the drugs' adverse effects—this is no new information," he said.

Health Groups Fan "Smokescreen" of Cigarette Manufacturer

Twenty years after the now-famous Surgeon General's report linking smoking and disease, tobacco companies have decided to fight back.

In a multi-million dollar campaign to defend smoking, tobacco manufacturer R. J. Reynolds Industries, Inc., is running advertisements in newspapers and magazines asking: "Can we have an open debate about smoking?" saying that not all scientific evidence indicates that smoking is hazardous.

At a February news conference in Washington, D.C., three health organizations have launched their own counter-offensive. Leaders of the American Cancer Society, American Heart Association, and the American Lung Association called the Reynolds campaign "a smokescreen" by "a desperate industry."

"This is one of the most misleading and irresponsible advertising campaigns any of us in this room can remember," said Edwin B. Fisher Jr., of the American Lung Association. "It's like opening a debate as to the lethality of bullets."

The health hazards of smoking "have been questioned by vested interests but never repudiated by science," said Antonio M. Gotto, M.D., a Houston cardiologist and current president of the American Heart

Association. "We are appalled that an attempt is being made to reopen the case against cigarette smoking."

They also criticized the tobacco companies' use of mountain climbers, ballet dancers, skiers, and other athletes to sell cigarettes, saying they violate an industry code that advertising not show smokers engaged in physical activity "beyond that of normal recreation." The Tobacco Institute, a trade group, says these ads meet the code, adding that interpretation of their content is subjective.

Insiders note that manufacturers are getting nervous about the increasing unpopularity of the habit, and growing restrictions on where and when to smoke.

R Drug Ads Nixed by Consumers, CBS Finds

What is likely to be an influential report on direct-to-consumer advertising of prescription drugs was unveiled by CBS Television researchers in February. Its findings, presented to the medical community and the Food and Drug Administration, will be used to guide TV advertising policy once the FDA's moratorium is lifted.

The study's results are based on 40-minute in-home interviews with 1,233 consumers and are projectible to the 77.4 million U.S. households believed to use prescription drugs. By knowing consumer attitudes about drugs, CBS can then suggest the most responsible and effective ad guidelines, researchers say.

The central conclusion is that consumers need more information about drugs. Nearly three-fourths of all interviewed households said they wanted to be better informed about drugs. Only one-third said they were well-informed about drug issues.

NIH Warns Against Ultrasound Misuse

Diagnostic ultrasound should be used only when medically indicated and not administered routinely to all pregnant women, according to a report issued in February by a National Institutes of Health panel of physicians.

No actual adverse effects have ever been associated with ultrasound, the panel agreed. But "hypothetical risks" should not be ignored or overlooked, said panel chairman Fredric Frigoletto, M.D., professor of obstetrics and gynecology at Harvard Medical School.

Ultrasound technology has improved dramatically in recent years: its high-frequency sound waves can detect minute fetal abnormalities, observe the valves in a fetal heart, and note the motion of fetal breathing. It is particularly useful in detecting multiple or ectopic pregnancies, thus improving outcome. An estimated 15% to 40% of all pregnant women have been exposed to ultrasound.

Routine screening is not justified, however, said the NIH panel. Ultrasound is believed to give off heat when sent through tissues. Thus, exposure to a large amount of ultrasound energy for long periods of time could produce cell damage.

Physicians should not perform ultrasound examinations to simply satisfy the family's desire to view the fetus, learn the fetal sex, or show the picture to friends. Additionally, physicians should not perform ultrasound for educational or commercial purposes, such as demonstrating new equipment.

announcements

CALENDAR OF MEETINGS

NATIONAL

- May 2-5 Christian Medical Society—Oakbrook Hyatt, Chicago
- May 2-6 American Association of Suicidology—Captain Cook, Anchorage, Alaska
- May 4-6 American College of Psychoanalysts—Ambassador Hotel, Los Angeles
- May 4-7 American Society for Clinical Investigation—Shoreham and Sheraton Washington, Washington, D.C.
- May 5-12 American Society for Head and Neck Surgery—The Breakers, Palm Beach, Fla.
- May 6-7 American Otological Society—The Breakers, Palm Beach, Fla.
- May 6-9 American Association of Plastic Surgeons—Drake Hotel, Chicago
- May 6-9 American Broncho-Esophagological Association—The Breakers, Palm Beach, Fla.
- May 6-10 Aerospace Medical Association—Town and Country Hotel, San Diego
- May 6-10 American Urological Association—Rivergate Convention Center, New Orleans
- May 6-11 American Society of Colon and Rectal Surgeons—Hyatt Regency, New Orleans
- May 7-9 American Association for Thoracic Surgery—New York Hilton
- May 8-10 American Laryngological, Rhinological and Otological Society—The Breakers, Palm Beach, Fla.
- May 9-12 American College of Legal Medicine—Loews Paradise Valley, Scottsdale, Ariz.
- May 11-12 American Academy of Facial Plastic and Reconstructive Surgery—The Breakers, Palm Beach, Fla.
- May 16-18 American Geriatrics Society—Hilton Hotel, Denver
- May 19-25 American Gastroenterological Association—Hilton Hotel, New Orleans
- May 19-25 American Society of Gastrointestinal Endoscopy—Hilton Hotel, New Orleans
- May 20-23 American Thoracic Society—Fontainebleau, Miami Beach
- May 23-26 American College of Sports Medicine—Town and Country Hotel, San Diego

- June 1-3 Mid-Central States Orthopaedic Society—Lodge of the Four Seasons, Lake Ozark, Mo.
- June 2-8 Pan American Medical Association—Marriott Hotel, New Orleans
- June 3-7 American Association of Immunologists—St. Louis
- June 4-6 American Society for Laser Medicine and Surgery—Hotel Utah, Salt Lake City
- June 6-9 International Symposium on Nasal Physiology and Surgery (sponsored by Amer. Rhinologic Society)—Hyatt Regency Chicago, Chicago
- June 12-14 American Diabetes Association—MGM Grand Hotel, Las Vegas
- June 14-16 American College of Cryosurgery—New York Sheraton Hotel, New York
- June 14-16 International Congress for Hair Replacement Surgery (sponsored by Amer. Assoc. of Cosmetic Surgeons)—Plaza Hotel, New York
- June 16-22 Association of Medical Illustrators—Hyatt Regency, Atlanta
- June 23-24 American Association for the Study of Headache—Hotel Meridien, San Francisco
- June 28-30 Society for Pediatric Dermatology—Cesar's Tahoe, Lake Tahoe, Stateline, Nev.

STATE

- June 14-15 Malpractice Prophylaxis (sponsored by Southern Medical Assoc.)—Peabody Hotel, Memphis
- June 20-22 Upper Cumberland Medical Society—Fall Creek Falls Resort Inn—Pikeville

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Commentary

Report From the City of Angels

The 1983 Interim Meeting of the AMA House of Delegates

JOHN B. THOMISON, M.D.

Now that the 1984 Annual Meeting of the AMA is almost upon us, you are finally getting a report from the Los Angeles Interim 1983 meeting, but you'll not have missed anything by not getting it sooner, as the most burning issues had to do with DRGs, and you have been surfeited with reams of copy on that. Even those who seldom pay any attention to such things have sat up and taken notice, but at the time of the meeting the full impact of the Prospective Pricing System (PPS) had only just begun surfacing. The fact is that the meeting was not very exciting, and so did not inspire me to a quick summation of it in my usual deathless prose.

While I am on the subject, at the risk of putting you off and moving you to close the book for more pleasant pursuits, I might just define a few things about DRGs and get them in their proper relationships. In the first place, DRGs (Diagnosis Related Groups), though an abomination that frequently has nothing to do with diagnoses, but with procedures instead, are not the disease that plagues us, but only a manifestation of it. The disease is known as the Prospective Payment System (PPS), again a misnomer, as there is no prospective payment. There is only

prospective pricing. The DRG of the patient's admitting diagnosis is only what the payment, occurring some time after discharge, is based on, so that PPS in reality stands for Prospective Pricing System. That should be obvious, since the government seldom pays its debts to us on time, let alone beforehand. (It is interesting that only to those of us in the health care system does the government delay paying its just debts.)

Without knowing what the future would hold, the AMA had been closely monitoring the situation, addressing it in two reports, one from the Board and one from the Council on Medical Services (CMS). Since they are preliminary, I'll not discuss them further. In line with its policy of keeping the federation informed, the AMA has published a guide entitled *Diagnosis-Related Groups (DRGs) and the Prospective Payment System*, which may be obtained from the AMA Order Department OD-230, and which, if you have not seen it, I commend to your attention. In addition, the AMA announced that the greater part of the 1984 Leadership Conference would be devoted to this and related topics. I attended the conference, and will summarize some aspects of it for you elsewhere.

Much of the concern about the PPS centers

about methods of reimbursement, which at present have not extended to physicians' fees. Nevertheless, there is a nefarious movement abroad on Capitol Hill to make a single payment per hospitalization. Regardless of whether the payment was made to the hospital or the admitting physician, the results would be equally unacceptable. This was addressed by the House in its SR 70, which resolves "that the American Medical Association endorse the concept that any system of reimbursement for physicians' services be independent of reimbursement systems for other providers of health care, and that the AMA continue its opposition to expansion of Prospective Pricing System until such time as they have been adequately evaluated with respect to their impact on the quality, cost, and access to medical care."

Sometimes when I sit in the reference committees I have a hard time believing that what I hear was actually said until I remember that in the heat of the moment most human beings are given to making off-the-cuff remarks that would withstand neither close scrutiny—even by their authors—nor the test of reason. It reminds me of a remark attributed to Matthew Arnold that it is dangerous to interject reason into politics. Physicians there can with a straight face, when told a course will certainly lead to litigation eventuating in the awarding of triple damages to the tune of perhaps a billion dollars against the federation, cavalierly, and even passionately defend such a course and to hell with the consequences. (They would, of course, be among the first to assault the AMA for stupidity and negligence when slapped with an assessment of several thousand dollars as their share in the judgment.) Fortunately this occurs almost exclusively in reference committee hearings and not on the floor of the House, an indication that even if their constituents will not, the delegates still behave responsibly. In addition, since the reference committee hearings are open to AMA nonmembers, frequently the speaker would have nothing to lose by irresponsible action by the House.

A perfect example of this was the heated and excessively protracted debate over a few words in the new *Accreditation Manual for Hospitals* of the Joint Commission on Accreditation of Hospitals (JCAH). The composition of the hospital staff and the interrelations of its various components, specifically as applied to limited licensed

practitioners, is admittedly a very sticky wicket, pitting against each other as it does various interests, and taking into account the varied statutes or lack of them in the several states. While the various speakers stopped short (barely) of advocating flouting of the law, they (mostly members of the Hospital Medical Staff Section) nevertheless urged the AMA to instruct its commissioners to the JCAH to pursue a course that would have seriously exposed the federation's fiscal well-being.

It has been customary for primitive peoples to execute the bearer of bad news. Now, of course, we are more civilized (it says here), so we simply vilify him. The members of the AMA Board of Trustees not infrequently find themselves in such a position, which once moved Bob Hunter to observe that it is odd that when he is elected to the Board, your best and most trusted friend immediately becomes your mortal enemy. It fell to Bill Hotchkiss, treasurer of the Association, to blow the whistle in the debate in question with the caveat that the House (and the federation) could really not pursue such a course. This did not earn him any points, nor did it slow the debate, which rather than ending just sort of petered out as blood sugar levels fell. There were all sorts of dire predictions of a blood letting on the House floor, yet SR 45 and BOT Report H sailed through without so much as a whisper. Acting responsibly, the House bowed to the inevitable.

Now I know that the AMA has been accused on many occasions of bowing to an inevitable that was not in fact inevitable. In this case, though, it is not that this is something that *might* happen. It has already happened, so perhaps inevitable is not *la mot juste*—perhaps "reality" would be better, since the laws are already enacted and similar litigation is in process. In such no-win situations there will always be those who believe the AMA is not acting in their best interest. Resolutions that would instruct the AMA commissioners to the JCAH to reject the draft of the manual were therefore defeated, and SR 45 adopted, resolving "that it be the policy of the American Medical Association that hospital admitting privileges be granted in accordance with state law and in accordance with criteria for standards of medical care established by the individual hospital medical staff."

Report H of the Board of Trustees, which is printed in this issue, and to which I commend your attention, is a progress report on the JCAH's activities in drafting the manual, and the AMA's

reaction to it. The physicians of the country should appreciate the efforts of the AMA that resulted in the retention of the words "medical staff" throughout in lieu of the proposed "hospital staff." In order to do this, it was necessary to remove for the most part specific references to limited licensed practitioners except in the section in Standard IV dealing with delineation of clinical privileges, where the limitations placed on privileges granted to nonphysician licensed practitioners to perform histories and physical examinations is discussed. Otherwise, the standards would permit limited licensed practitioners to have hospital privileges consonant with their training, experience, and current competence if approved by the normal credentialing process. This has to do with the statutory requirements in the various states.

The fireworks being confined almost exclusively to the reference committees, the House, not to be outdone, prolonged its deliberations with an inordinate number of picayune diversions. Nevertheless, it not only finished on time, but even slightly ahead of schedule. I will therefore run through some of the more important items it considered, taking them pretty much by reference committee assignment.

Contemporary technology, as well as various forces in society, are tending to destroy privacy, and in medicine to erode the confidentiality of the patient-physician relationship. In addressing the World Medical Association recently, Pope John Paul, in commenting that medical ethics have always been defined by respect for and protection of the human being, and that an ethical physician depends fundamentally on his conception of what medicine is, said, "It is a question of knowing definitively if medicine is in the service of mankind, of the dignity of mankind, that which is unique and transcendent, or if the physician is considered first as an agent of the community, in the service of the interests of the healthy at the expense of care for the sick."

This question is pertinent in many areas of medicine, but nowhere more so than in the matter of confidentiality. The Judicial Council addressed this matter in its Report D, in which it said "the information disclosed by a patient during the course of a relationship between physician and patient is confidential to the greatest possible degree. The patient should feel free to make a full disclosure of information to the physician in order that the physician may most effec-

tively provide needed services. The patient should be able to make this disclosure with the knowledge that the physician will respect the confidential nature of the communication. The physician should not reveal a confidential communication or information without the express consent of the patient, unless required to do so by law.

"The obligation to safeguard patient confidence is the subject of certain exceptions which are ethically and legally justified because of overriding social considerations. When a patient threatens to inflict serious bodily harm to another person and there is a reasonable probability that the patient may carry out the threat, the physician should take reasonable precautions for the protection of the intended victim, including notification of law enforcement authorities. Also, communicable diseases, and gunshot and knife wounds should be reported as required by applicable statutes or ordinances."

This achieves the fine balance between the physician's responsibilities to the patient in maintaining confidentiality, as well as his responsibility to the community as a citizen of it. Even though there are those that would make him an agent of the community, and put prevention as it applies to the community at large ahead of the care of the sick, and even though preventive medicine is a valid pursuit for physicians, the physician should always bear in mind that his overriding responsibility is to his individual patient.

A number of resolutions, in addition to Report B of the CMS, address the matter of payment for physician services, whether by the traditional usual, customary and reasonable (UCR) format, or by the indemnity method. Some of the resolutions favored one or the other over its alternative, whereas the CMS report, as finally adopted, recognized positive aspects of both methods, and recommended first that the AMA recognize the validity of a pluralistic approach to third-party reimbursement, and also that the House of Delegates reaffirm the Association policy supporting freedom for physicians to choose the method of payment for their services and to establish fair and equitable fees, freedom of patients to select their course of care, and neutral public policy and fair market competition among alternative health care delivery and financing systems.

In its Report JJ, the Board of Trustees, describing current pressures from governmental and private sectors to control payment for physician

services, emphasized that the contract for care and payment is between the physician and patient. It affirmed the right and privilege of each physician to set fees that are reasonable and appropriate while always remaining sensitive to the varying resources of patient and retaining for the physician the freedom to choose instances where courtesy or charity could be extended in a dignified and ethical manner. The House also adopted amended Resolution 69, which resolved that in order to offer the highest quality of medical care at the lowest cost, the AMA reaffirm its conviction that there should be private individualized medical care, free enterprise insurance mechanisms, and a specific degree of direct patient responsibility with pluralistic, free choice options.

Reference Committee B considered resolutions and reports touching on a very wide variety of topics, among them the so-called "Baby Jane Doe" legislation. The House did not address the propriety of either institution or termination of treatment for severely handicapped infants, but rather whether or not this was a matter for public intervention. In fact, the Association holds that this is a decision to be made individually, and that disposition of a case cannot be predetermined. For either the Association or government agencies to make such prescriptions is an intrusion into the physician's prerogatives involving his judgment and the family's wishes. The House, therefore, adopted SR 23, which resolved that the American Medical Association continue to oppose regulations or legislation which would impose a federal role in the decision-making about the care of severely ill newborns, and that the Association reaffirm the policy found in opinions 2.10 and 2.11 of the Judicial Council concerning quality of life and terminal illness.

Legislation has been proposed that would remove incentive pay for military surgeons serving in executive and managerial positions. This would impose a severe handicap on the medical care of military personnel, since most of the military's senior officers would come under such a ban. Though this would result in considerable budgetary savings, it would result in the early retirement of a high percentage of the military's most experienced officers, leading to chaos in the system and resulting in deterioration of care of our military personnel. The House, therefore, adopted SR 30, reaffirming the Association's opposition to "legislative or regulatory prohibition of

application of various special pay allowances to military physicians serving in executive and managerial positions."

One of the most pressing public health problems at the moment concerns the use of asbestos, and massive litigation has arisen from its previous use extending back to the days of World War II. Judgments against producers and users of asbestos have forced many of them into bankruptcy, so that to aid individuals handicapped through asbestos use the Congress is considering legislation to establish a no-fault fund such as is currently established for "black lung disease" through a tax on coal. The federal government would be the largest contributor to the fund in light of its extensive use of asbestos during World War II to construct warships. Resolution 21 (A-83) called upon the AMA to request Congress to address the complex issue of responsibility for asbestos-related illness and other occupational-related illnesses. The Board of Trustees addressed this resolution in its Report R, to the effect that Congress is already responding to the need, and that the Association would continue to monitor the situation. In addition, CSA Report F is "A Physician's Guide to Asbestos-Related Diseases," which answers the more common questions regarding asbestos and health, providing an extensive list of references for the reader who requires more comprehensive knowledge. All of the Council's reports are now being published in book form by the Association, and should be available in the next few months for those interested. The *Journal* will, therefore, not carry the CSA reports, since it is not a prudent use of our space and funds.

The American Medical Association has steadfastly maintained two positions: first, that a physician may dispose of his services as he wishes for a fee decided upon between the physician and the patient. The second position is that the provision of care is a matter between the physician and the patient, and not between the physician and any third party, unless the physician wishes it so. This is simply a right guaranteed in a free society by the Thirteenth Amendment, which prohibits the imposition of involuntary servitude. The acceptance of assignment of predetermined amounts from third parties, including the federal government, in return for such services must therefore be voluntary. Federal legislation has been suggested that would require hospitals to demand that a physician accept Medicare assign-

ments for services as a condition to continued eligibility for hospital staff privileges. Since this would force involuntary servitude on the attending physician or surgeon, denying the independent contractor his vested rights to earn a living, the House adopted Resolution 123, resolving "that the American Medical Association oppose any legislation demanding acceptance of Medicare assignment as a condition for medical staff privileges." In addition, in SR 122, the House went on record that both reappointment to the hospital medical staff, and peer review for quality assurance in hospital medical care be based on all elements of a physician's performance, and not solely on any limited assessment, such as conformity to diagnosis related groups or length of stay criteria.

Further addressing medical staff problems, the House adopted Resolution 115, which resolved that the AMA establish policy that where consistent with local, state, and federal laws, only fully licensed physicians on the medical staff establish overall medical staff standards and policy for quality medical care, inasmuch as only staff physicians and surgeons have the broad education necessary to provide for the overall medical needs of hospitalized patients. Further, the House adopted amended Resolution 59, which resolved that the AMA strongly recommend that hospital medical staffs retain their own attorneys, so that the staff will have its own legal advocates for guidance, and that the chiefs of staff, administrators, and boards of trustees of hospitals be notified of this action by the House. This action becomes extremely important as federal regulations force hospital administration and medical staffs further into an adversarial role. As this occurs, hospital staff organizations must become independent of the hospital administration and governing board, establishing proper procedure for electing its own officers without help from the administration and governing board. For the protection of the individual, the medical staff, and the hospital governing board, it also becomes absolutely necessary that although members of the hospital staff need to be members of the governing board, the chief of staff should not be one of them. These matters should receive the immediate attention of all hospital staffs, and be acted upon with alacrity. Once this is accomplished, the medical staff should set about with the assistance of its own counsel to draft and adopt its own bylaws. Although the bylaws will need ultimately to be approved by the governing board, which

has the responsibility for the direction of the hospital, the bylaws should be developed independently.

Although the intent of current government regulations is to have the effect of promoting competition within the so-called health care industry, there is restrictive legislation that is counterproductive. Freedom of choice of physicians and health care delivery systems promotes and encourages competition, which will stimulate the development of cost-effectiveness and enhance the quality of medical care, but arbitrarily restricted access, such as that imposed on selected groups of Medicaid patients, abrogates this freedom, and such limitations reduce competition, impair cost-effectiveness, and potentially reduce the quality of care for such individuals. The House therefore adopted amended Resolution 34, which resolved "that the American Medical Association reaffirm its position that the individual's freedom to select a preferred system of health care and free competition among physicians and alternative systems of health care are prerequisites of ethical practice and optimal patient care, and indicate additionally that economic disadvantage should not constitute grounds for abrogation of freedom to secure access to optimal care." The Board of Trustees, in its Report B, entitled "Competition in Medicine: Update II" reported on its continuing study of competition in medicine, and described the Association's activities to provide physicians with information and services needed to compete in the health care marketplace. This is not a very long report, and since it catalogs a number of resources concerning practice opportunities, organization of practice resources, and matters of medical practice finance, I will publish it in the *Journal*. Somewhat more lengthy is CMS Report C, which is the second CMS report on the effects of competition in medicine. It discusses the expanding numbers and roles of allied health practitioners, and the increased involvement of entrepreneurial organizations in the health care sector. It is therefore a very important report, and it also will be published.

In its Report II, the Board of Trustees addresses participation in the political process through AMPAC. The purposes of AMPAC, as stated in its standing rules, are to encourage physicians to take a more active and effective part in governmental affairs, to know and understand the na-

ture and actions of their government, the important political issues, and the records of office holders and candidates, and further, to assist physicians in organizing for more effective political action and in carrying out their civic responsibilities. Since its organization in 1961, the House has on several occasions reaffirmed its support of AMPAC, so that today there are effective medical political action committees in virtually every state. They are most effective when backed by strong medical society leadership, and the state PACs and the work of AMPAC have helped create a deserved national reputation for political effectiveness for organized medicine. The AMA's PAC was the first of a large number that have been formed by many interest groups, and has been so effective that it has drawn fire from such anti-AMA groups as Common Cause. Because of the importance of the AMPAC, particularly in this election year, and the necessity for its support by every physician, I am publishing this rather short report of the Board in this issue, with an admonition to give AMPAC your own personal commitment and financial support.

Though the PACs have been severely criticized for bringing undue political pressure, it is most interesting that those who derogate such activities by the PACs never mention the large slush funds or the intense political pressure by labor organizations, which far outweighs that brought by any individual PAC or even their combined efforts. In its report, the Board, and by its adoption of the report, the House of Delegates as well, urges members of the Association to dedicate themselves to the growth of the American Medical Political Action Committee and the state medical PACs.

A number of reports and resolutions had to do with health care, and health care for the aged population received extensive coverage in two reports, Report D of the Board of Trustees, and CSA Report C. Report D describes the AMA activities in studying the health care problems of the aged, covering such topics as private sector approaches to financing and delivering care, alternative technologies and delivery mechanisms, home health care and other community services, and experiments with alternative service delivery approaches. This report will be published in the *Journal*. CSA Report C discusses physical exercise by the elderly, recommending that physi-

cians stress the importance of exercise for older patients, and encourage all patients to establish exercise programs as a life commitment in preparation for their later years. Like the other CSA reports, this one will be published in book form by the AMA.

Other CSA reports deserving your attention are, in addition to those already mentioned, Report A, entitled "Early Detection of Breast Cancer," and Report E, entitled "Caffeine Labeling." Report A discusses the early detection of breast cancer and recommends continued public education efforts, continued efforts by physicians to educate their patients about self-examination, and recognition of the importance of mammography as an effective screening device. Report E concerns the Council's investigation of caffeine in food and beverages, noting that no definite health risks have been identified with moderate consumption, and recommends a continued review of the safety of caffeine intake, while at the same time opposing mandatory labeling of food and beverages as to caffeine quantity.

CSA Report D, entitled "Nonsmoking in Hospitals," proposes a series of guidelines regarding smoking in hospitals, urging physicians to take the lead in promoting the development of nonsmoking policies and programs. An AHA study listed some obstacles to hospital efforts to control smoking, including concern for the individual rights of smokers, cost of implementing policies and programs, attitudes and smoking behavior of hospital staff and physicians, difficulty of enforcing restrictions, lack of government regulations to support restrictions, time necessary to implement policies and programs, and loss of revenue to the hospital gift shops. The report recognized that to make further progress in the control or elimination of smoking within hospitals, management must recognize and address those obstacles, but a survey showed that a large majority of the public, including a majority of smokers, favor restricting smoking in public places, including health care facilities. There is a growing body of evidence to indicate that involuntary smoking may pose a health problem to the general population, and certain patients, among them those with chronic cardiovascular and pulmonary disease, are especially susceptible to the ill effects of secondhand tobacco smoke. In addition, cigarette smoking is by far the leading cause of hospital fires.

Though current AMA policy supports a more stringent limitation on smoking in public places,

particularly health care facilities, and despite public support, many hospitals still lack forceful policies. The report therefore recommends that physicians should take the lead in promoting the development of nonsmoking policies, that smoking should be prohibited where flammable materials are stored or in use, as well as in all corridors, elevators, and acute care areas. Bedridden patients should not be allowed to smoke, and all smoking on patient floors should be restricted to specifically designated, well-ventilated areas. The report recommends that in addition to having smoking and nonsmoking areas in all lounges and eating places, hospitals seriously consider designating entire floors as nonsmoking. Education programs should be carried out concerning smoking, and hospital administrators must be made aware of all the hazards of smoking and take the necessary steps to reduce these hazards. It is likely that hospitals that restrict or eliminate smoking within the institution could affect reductions in insurance premiums.

Perhaps the most emotional discussion on the floor of the House involved BOT Report G and SR 75, both adopted by the House, involving the insanity defense in criminal trials and limitations of psychiatric testimony. Report G, which provided an analysis of the insanity defense in criminal cases and recommended, in part, that the special defense of insanity be abolished and replaced by the statutes providing for acquittal when a criminal defendant, because of mental disease or defect, lacked the state of mind required as an element of the offense charged, will be published subsequently. Resolution 75 resolved that "the AMA continue collaborative efforts with the ABA and the American Psychiatric Association to achieve a common policy position concerning the insanity defense."

The American Bar Association (ABA) and the American Psychiatric Association (APA) expressed opposition to BOT Report G, which concluded that the insanity defense "has outlived its principal utility, [that] it invited continuing expansion and corresponding abuse, it requires juries to decide cases on the basis of criteria that defy intelligent resolution in the adversary forum of the courtroom, and it impedes efforts to provide needed treatment to mentally ill defenders." The report's recommendations include one that would replace the insanity defense with statutes to provide for acquittal when the defendant's mental condition precludes the state of mind re-

quired as an element of prosecution. Instead of taking place during the trial, the debate over insanity, if the defendant is convicted, would take place during the sentencing phase, since multiple contradictory psychiatric opinions presented during such cases confuse jurors.

The American Law Institute requires that for an insanity defense, the defendant must understand the nature of his action and its wrongfulness and that the defendant must have acted on an irresistible impulse. The APA and ABA, while agreeing that it is impossible to determine whether a defendant acted on an irresistible impulse or an impulse not resisted, the cognitive element, that the defendant must understand the nature of his actions, should be retained. The AMA House, however, agreed with the Reference Committee that the report of the Board is rational and thorough in all aspects, will decrease the time and cost involved in criminal trials, and will provide greater opportunity for appropriate treatment of the mentally ill.

Though the report ran counter to both the ABA's and APA's position, as well as that of the Reagan administration, the consensus of the House was that it is fundamentally wrong for a legal judicial system to permit an acknowledged criminal to go free, and that the American public, which wants and deserves protection, seeks from the AMA a position on the question supporting it.

Report Y of the Board of Trustees, entitled "World Medical Association," summarizes the history, organizational structure, and activities of that body, particularly as they relate to medical ethics, continuing medical education, and international health programs. I must emphasize that the World Medical Association is an independent body that has no relationship at all with the United Nations, and so must be distinguished from the World Health Organization, which is the United Nations' health arm. The World Medical Association is a federation of national medical associations, among them the AMA. Individual members of those national associations may join the World Medical Association as associate members. It deserves the support of every one of us, as it is striving through its member bodies to elevate the health care delivery system in their respective nations. In recognition of this, the House adopted SR 102, which resolves that "the American Medical Association continue to support the activities of the World Medical Associa-

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tion to improve health care in developing countries, and that the AMA ask the WMA to commend those countries that demonstrate exemplary efforts to improve health care delivery to their populations." Because of the importance of the World Medical Association, I will publish BOT Report Y in the *Journal*.

Finally, in adopting SR 20, entitled "'Opium' Perfume," the House addressed a symptom of our times. Resolving that "the AMA oppose the advertising practice of naming products for controlled substances, implying that their use is exciting and desirable," the House took note of the epidemic of adolescent drug and alcohol use and experimentation in this country. It noted that such experimentation is associated with alarming teenage chemical dependency and the increasing death rate among our young people in the face of dropping national mortality for all other ages, the three leading causes of death in this age group being accidents, suicides, and homicides, many of them alcohol and drug-related. It saw as one of the reasons for this epidemic media popularization of drugs as exciting and acceptable, a manifestation of this being the promotion of colognes called "Opium," "Stash," "Sinsemilla," and "Cocaine" by misleading advertising campaigns aimed at young people. Though the manufacturers maintain steadfastly that their intention is not to promote drugs at all, such assurances have a hollow ring, in that it is patently impossible to dissociate the name from the

substance in the mind of the impressionable young, who are seeking glamour and excitement. Whether intended or not, glamourization of the name also glamourizes the substance, and is immoral on its face. Although such usage in advertising obviously cannot be made illegal, it should excite intense disapprobation on the part of every thinking citizen. Since the AMA obviously cannot dictate to advertisers, the House declined to name individual products or their manufacturers in the substitute resolution, as the original resolution did, but confined its comments to a generic product.

The lack of excitement at the meeting that I commented on previously should not be interpreted as implying lack of importance. Some of the most important items in all of life are exceedingly dull unless individually applied; practically all that I have touched on, and much more as well, vitally affects you and your practice. To itemize, let alone discuss, every item of importance would result in a document that would not only be unwieldy, but would likely go unread, and I fear that I have already exceeded your tolerance. I will, therefore, close by assuring you that the Association is not only attentive to your needs, but is doing its level best in the face of near insurmountable obstacles to ensure that as much as possible the practice climate and its outcome to the patient may be if not ideal at least acceptable. Whether you think it is or not, it is your Association, and deserves your support.

Help for Impaired Physicians

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

HELP US TO HELP

Call the TMA Impaired Physician Program (615) 327-2711; outside Nashville call collect. Phone service available around the clock.

Interrelationship of Pregnancy and Athletic Performance

ALBERT W. DIDDLE, M.D.

Introduction

Patients commonly seek advice regarding the type and degree of athletic activity that is practical during pregnancy. In my clinical experience requests for information have been much more common in the decade just past than heretofore. Change in lifestyle, whereby exercise and weight programs are started, has sharply increased.¹ Nichols² recently listed 61 different sports variously performed by nonpregnant women. Both contact and noncontact activities are popular. Though most participants are adolescent, many women want to continue their athletic activities during pregnancy. Questions have therefore arisen regarding the advisability of gravid women doing strenuous exercise from the standpoint of the well-being of both themselves and their unborn child. "The medical profession has no understanding of why people are becoming more fit and it has been of little help in telling them how to do it." This applies to gynecologic specialists, too.³ For these reasons I present an appraisal of the effect, if any, of athletic activity on the course of pregnancy.

History

In the Book of Exodus, chapter 2, verses 1 to 19, it is implied that Hebrew women had easier labors than Egyptian women did, because the former were accustomed to hard manual labor while the latter were not. In 1895, Palmer cautioned gravid women against indulgence in strenuous sports,⁴ and in 1916, Williams⁵ advised only exercises that involved either walking or riding "over good roads" during pregnancy. Otherwise, sports, except for sea bathing, were to be discontinued. As late as 1947, Delee and Greenhill⁶ discouraged pregnant women from running, playing golf and tennis, swimming, cycling, skat-

ing, and riding horseback unless they were previously accustomed to the sport. It was believed until the middle of this century that a ride, a jolt, or a fall was likely to cause a premature birth.⁷ In 1944, however, it was learned that the incidence of early delivery was unaffected by the usual modes of travel by plane, train, or automobile.⁸ In the last decade, Jokl⁹ and Wilmore¹⁰ noted that labor in athletes was shorter than that in non-athletes. Sports were not a deterrent to pregnancy or childbirth; in fact, exercisers recuperated more quickly postpartum than non-exercisers.

Anatomy and Physiology

Pelvis: The inclination of a nonpregnant woman's pelvis is 55° or thereabouts while she is standing,¹¹ whereas as the abdomen enlarges during pregnancy, the pelvic tilt usually increases and the center of weight bearing shifts forward toward the symphysis. Along with relaxation of the pelvic ligaments produced by hormonal changes, a gravid woman's agility in walking, turning, lifting, stooping, throwing and gymnastic maneuvers is diminished.¹² Backache may be a common complaint with poor muscle tone.

Fluids: Even though the average woman gains approximately 8.5 liters of water during pregnancy,¹³ this extra amount of fluid does not shield her from dehydration associated with physical activity beyond that usual for the nonpregnant woman. As long as enough water is consumed to replace fluid lost, the body operates efficiently barring other complications.¹⁴

Gases: Expired volumes of oxygen and carbon dioxide were greater at rest for gravid women at 38 weeks than for those three months postpartum as determined before and after 50 w-bicycle exercises.¹⁵ Concomitantly, the veins of the lower extremities were distended by larger amounts of blood in the gravid than in the nongravid woman.¹⁶ During exercise, muscular contractions in the lower extremities forced more blood through the lungs, altering gaseous exchange.¹⁵

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Energy: Expenditure of energy differs for various athletic activities.¹⁶ For instance, a nonpregnant subject weighing 68 kg would require 365 kcal to swim 50 yards a minute during a 30-minute exercise. For the same period, figures for tennis, volleyball, jogging 5.5 miles per hour (mph), running 8 mph, and walking 3 mph, respectively, would be 265, 175, 500, and 135 kcal.¹⁷ It is theorized that gravid women would use as much or more energy than the nonpregnant one to support the same efforts.

Cardiorespiratory State: Cardiac output increases 30% over normal within the first two trimesters of pregnancy and remains elevated for the rest of the period of gestation. Venous pressures rise 10 to 30 cm of water in the supine, sitting, or standing position.¹⁸ The increased blood volume goes mainly to the uterus, kidneys, and skin.¹⁵ With exercise, blood is shunted to the active muscles for energy and to the skin for cooling. This is accompanied by a drop in renal and splanchnic flow.¹⁸ The cardiac rate may be slower but the end systolic ventricular volume is greater in trained exercisers than non-exercisers.¹⁹

Experimentally, fetal oxygen decreased 60% in pregnant sheep worked on a treadmill for 20 to 45 minutes.²⁰ Uterine and umbilical blood flow decreased significantly, but oxygen uptakes in both vascular systems remained unchanged in severely exercised ewes, as well.²¹ Still others observed no appreciable circulatory change in severely exercised gravid sheep.²²

Clearance rates of radiosodium from uterine and thigh muscles have been determined in normal gravid and preeclamptic women between the 32nd week in pregnancy and term. During the exercise, blood flow to the uterus diminished a quarter of the normal amount for normal pregnant women compared to a fifth of normal in preeclamptic women.²³ At the same time, blood flow almost doubled in the thigh muscles in both groups during exercise. It was theorized that the life or growth of the fetus in utero in the preeclamptic woman might be endangered. When gravid women did the Master-Two-Step test, most of their babies in utero responded with abnormal heart tracings with peak activity.²⁴ These responses were attributed to hypoxemia due to shift of blood from the uterus to the active muscles. Contrariwise, Bader and associates²⁵ noted no change in the fetal heart rate to bicycle ergometer action during pregnancy. Yet Maršál and

others²⁶ found a transient but marked increase in fetal breathing movements at the end of a bed ergometer performance. They believed that fetal breathing movements were a more sensitive means than the fetal heart rate to monitor diminution in the oxygen supply to the fetus.

Atmospheric Pressures: Experimentally, maternal chronic hypoxia has been noted to cause fetal demise in utero,²⁷ or teratogenic²⁸ effect. Excessive atmospheric pressure induces a decrease in umbilical venous blood flow.²⁹

Reproductive Capacity: Uterine blood flow may diminish enough to stunt intrauterine fetal growth in severely and chronically exercised animals.³⁰ Temporary anovulation and infertility may accompany athletic programming associated with excessive loss of weight in the human, yet there is no evidence that this is irreversible.³⁰⁻³²

Injuries

Postural changes combined with major gain in weight may accentuate the possibility for sprains or backache during pregnancy.² Cramps in the lower extremities of gravid women may accompany shortening of the calf muscles.³³

Fractures acquired during pregnancy may invite undesirable complications. Formation of a callus on the inner aspect of a pelvic break or a distortion of the birth canal may complicate the course of a vaginal delivery. Use of a cast is bothersome because of both its weight and the edema that may develop.

Coccydynia is more of a risk in pregnant than nonpregnant women who indulge in bicycling, climbing, riding horseback, marathon running, and hiking.²

Type of Sport

Water Sports: Women have won medals for performance in swimming during the first trimester of pregnancy.⁹ Water skiing, however, is inadvisable during a gestation. There is always the danger for any woman who water skis to fall and be subjected to a sudden hydrostatic douche and genital lacerations.^{34,35}

Diving carries risks. Bolton³⁶ analyzed the records of 136 women during a total of 145 pregnancies. Nearly 40% made their last dive during the first trimester, slightly over 40% in the second, and 20% in the third trimester of pregnancy. Nearly a half of the women made more than five dives in the first trimester; nearly a half of these women dove more than 66 ft (20.1 m) while a fourth descended more than 99 ft (30.2 m).

Eighteen of the last group of women had normal babies as did seven others that underwent decompression. Another two mothers descended to 120 ft (36.5 m) and 160 ft (48.7 m), respectively. One had a baby with multiple hemivertebrae, and the other gave birth to a child with congenital absence of a hand. Another four women, who dove to depths less than 99 ft, had an infant with either a hairy birthmark, coarctation of the aorta, ventricular septal defect, or hypertrophic pyloric stenosis. All the remaining babies were normal, born of mothers who dove less than 99 ft. Bolton pointed out that although the study was somewhat biased and information incomplete, nevertheless it was believed there were enough data to support the recommendation that gravid women should not dive beyond a depth of 60 ft. Even at this depth, water pressure increases nearly two atmospheres (66 ft or 20.1 m) and raises the pressure of oxygen accordingly.³⁷⁻⁴¹

Theoretically, a nonpregnant relatively inactive person can remain submerged at a depth of 60 ft for one hour, at 100 ft (30.5 m) 25 minutes. If exertion is performed at 100 ft, the swimmer can remain only eight minutes before requiring decompression prior to surfacing. Figures are unavailable for gravid women, but it is suspected that they could be as vulnerable to bends as the nonpregnant. Also, obese gravid divers would be at greater risk for bends because nitrogen is five times more soluble in fat than nonfatty tissues.³⁹

Experimentally, gas bubbles were found in the circulation of sheep fetuses using standard decompression procedures even though the mothers were unaffected when exposed to increased hydrostatic pressures.⁴² Bolton³⁶ cited several references to experimental and clinical observations that intravascular bubbles may appear with increased hydrostatic pressure. It was hypothesized that these bubbles could obstruct fetal and placental blood flow, with detrimental results.

Bubble formation in the blood stream has been identified among nongravid sports divers who either rode in unpressurized or pressurized planes above 3,000 ft (915 m) less than 12 hours after the exercise. For this reason the military service recommended flying be delayed 12 or more hours after diving to great depths,⁴³ since nitrogen requires an extended period for mobilization and release via the lungs.^{44,45}

Water conducts heat and cold 20 times as readily as air.^{41,46} A hyperthermic core temperature may cause cardiovascular, hematologic, or central nervous system aberrations. It has been

theorized that a gravid woman with a hyperthermic core may place her unborn baby in jeopardy,^{47,48} because it is unable to dissipate heat under this situation. On the other hand limited prospective studies do not support the contention.^{49,50} Deep vaginal temperatures were not elevated abnormally among users of hot tubs. Saunas appear to be safe as long as the maternal core temperature does not exceed 1.5° C.⁴⁹

A gravid woman swimming twice a week during the 32nd and 39th week of gestation had an 80% rise in the maternal cardiac rate with aerobic exercise, but no concomitant fetal bradycardia or tachycardia.⁵¹ Other investigators found that oxygen consumption decreased while the average mean amount of work increased for gravid women in a swim fitness program. In contrast, oxygen consumption increased while work capacity decreased for non-exercising gravid controls as the pregnancy advanced. Swimming enabled the exercisers to maintain fitness, whereas that of non-exercisers deteriorated.⁵²

Running: As pregnancy advances, running and jogging are usually replaced by walking because of clumsiness and reduced performance. Still, the exercise done in moderation is beneficial.⁵³

In the case of a 32-year-old gravid woman running 6 mph the uptake of O₂ and the cardiac activity increased appreciably as the pregnancy progressed.⁵⁴ Others have noted similar physiologic changes in gravid runners.¹⁸ In another instance, a 36-year-old pregnant woman jogged four miles a day up to the day of delivery. During the pregnancy, the maternal weight increased 23%. Aerobic fitness remained stable. The duration of labor was short and the postpartum course normal.⁵⁵ In another protocol, 12 women ran an average of 18.7 miles a week before pregnancy.⁵⁶ After they conceived, they gradually lowered the average mileage to 6.6 miles a week in the third trimester of pregnancy. During the course of pregnancy, these women were tested on a treadmill. The fetus acquired a transient bradycardia with the peak of maternal exercise. Cause of the fetal change was undetermined, but the investigators were of the opinion that pregnant runners should be counseled of potential cardiorespiratory risks for the unborn baby.

Elsewhere, it has been documented that a programmed exercise improves the working capacity of pregnant women⁵⁷⁻⁵⁹ without producing abnormal fetal cardiac rates in a normal pregnancy. On the other hand, Schaefer⁶⁰ cautions gravid marathon runners against acquiring a hy-

perthermic core temperature for the same theoretical reason given above under swimming.

Climbing: The human fetus in utero normally lives in an environment with oxygen levels comparable to atmospheric conditions at 33,000 ft (10.05 km) above sea level. Contrariwise, the adult human cannot survive above a level of 28,000 ft (8.53 km) and frequently acquires oxygen want even at 15,000 to 17,000 ft (4.57 to 5.18 km).⁶¹ Acute pulmonary edema is always a possibility for the unacclimated person at 12,000 ft (3.65 km) elevation or above.⁶² Thus gravid women would do well to avoid atmospheric conditions at 12,000 ft or more.

Other Sports: Skiing is different from all other types of athletic activities. There is the stress of climatic changes, sharp alterations in weather, rapid variations with change in altitude combined with the risk of an accident associated with great exertion, continuous performance for an extended length of time, and supercooling that may lead to shock.⁶³ Skiing requires a great deal of flexibility and agility⁶⁴ that is usually diminished during a pregnancy. The gravid woman should take a conservative approach to the sport.

Tennis does not appear to present unusual problems for the pregnant woman other than clumsiness. For instance, Margaret Court successfully competed in the world tennis matches up to the eighth month of pregnancy.²

Competitors in the relay race, shot put, or discus have exercised successfully in the first trimester of pregnancy.⁹

Comment

Precise information regarding the relationship of pregnancy on most athletic performances is not well documented. Generally all sports challenge the body to 21 demands either of neuromuscular (13), psychomotor (5), or environmental (3) type.² Injuries may result if any of the demands are not met. A gravid woman should elect the exercise with the least risks.^{55,65} Some exercises may be associated with problems peculiar to that activity.⁶⁶ For instance, Korean women, who work as divers for a living, continue their occupation up to the time of the delivery.^{1,66} Although these women engage in breath-holding diving, not scuba diving, they experience premature delivery more often than nondivers.⁶⁷ Exercise enhances fibrinolytic activity of the serum,⁶⁸ fortifies the working capacity for labor,^{69,70} and maintains

aerobic activity.⁵⁸ There are no data to substantiate fertility as diminished later in life because of previous athletic activity. This has been documented particularly for swimmers.⁷¹

On the other hand, oxygen deficits may account for decreased fetal weight and congenital abnormalities in babies born to women who practiced deep diving early in pregnancy.⁷² Sundell⁶⁷ is quoted to the effect that nearly all babies who have hyaline membrane disease previously suffered from intrauterine hypoxia.

Time profiles and depths for diving that are hazardous to pregnant divers are unavailable. The no-decompression limits currently used were developed for nonpregnant divers and therefore may pose a threat of either hyperoxia, hypoxia, hypercapnia, or asphyxia to the unborn fetus.⁶⁷ Even diving only to a depth of 30 ft may bring a risk of nitrogen bubbling and venous gas emboli that are clinically unrecognizable.⁷³ Since there are medicolegal unknowns regarding the effects of scuba diving on gravid patients and their unborn infants, a conservative approach to this sport is suggested.^{44,67,72,74-76.}

Jogging, biking, ballroom dancing, walking, tennis, and surface swimming appear to be satisfactory athletic activities for the average pregnant woman as long as she is comfortable in the activity. In the latter part of pregnancy, anticipate that running, kicking, throwing, jumping, climbing, lifting, and stance may produce muscular strain and fatigue. These sports may injure the pelvic girdle, coccyx, or muscles of the back and legs. For instance, Hammond,⁷⁷ who ran during the third trimester in two pregnancies, experienced discomfort in the anterolateral areas of the legs with a weight gain of less than 30 lb. The discomfort was attributed to swelling of the fascial compartments of the muscles.

Those gravid women who are not athletically fit at the onset of pregnancy may develop an exercise program by following a few criteria.⁵² Avoid activities that require sudden moves and balance, begin gently a program of vigorous endurance exercise that increases the cardiac rate of 150 beats per minute, supply an appropriate number of calories, adequate fluids and rest, and avoid hypoventilation, overheating, and chilling.^{12,78} Wear comfortable garments and shoes,⁵³ including a proper fitting bra.¹²

Most women "take up a sport to get into shape when, in fact, they should be in shape to take up a sport."⁷⁸ One way to determine fitness and monitor limits of activity is to count the pulse

five minutes after the exercise. If the count exceeds 120 beats per minute, that activity was too vigorous. Ten minutes after the exercise the pulse normally should drop below 100.⁵²

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Joint Commission on Accreditation of Hospitals

Report W of the Board of Trustees (A-82) was filed with the request that a status report on the Joint Commission on Accreditation of Hospitals (JCAH) be made to the House of Delegates at least annually. It outlined actions taken by the AMA since the adoption of Report MM of the Board of Trustees (A-80), which recommended that the JCAH rewrite its accreditation standards. The process of revising the standards has been ongoing.

At the 1983 Annual Meeting, the House of Delegates filed Report M of the Board of Trustees, which provided an update of JCAH activities since the 1982 Annual Meeting, particularly as they related to proposed revisions in the medical staff chapter of the *Accreditation Manual for Hospitals*.

Also at the 1983 Annual Meeting, the House of Delegates adopted Substitute Resolution 116. The resolution outlined six principles as the basis for any revision of the medical staff chapter of the *JCAH Accreditation Manual for Hospitals*. It also directed the AMA commissioners to the JCAH to request a delay in final approval of any revisions in the medical staff standards until after soliciting and considering comments from the AMA House of Delegates, medical societies, hospital medical staffs, hospitals, and medical specialty organizations.

The principles adopted by the House of Delegates in Substitute Resolution 116 (A-83) were:

1. Continue the use of the term "medical staff" in the title of the chapter and throughout the Manual;

2. Delete any specific references to limited licensed practitioners now contained in the medical staff chapter of the 1983 *Accreditation Manual for Hospitals*. This does not preclude such practitioners from having hospital privileges consonant with their training, experience, and current competence, if approved by the normal credentialing process;

3. Provide consideration of qualified limited licensed practitioners in accordance with state law and when approved by the executive committee of the medical staff and by the governing board and when their services are appropriate to the goals and missions of that hospital, taking into account the training, experience and current clinical competence of the practitioners;

4. Provide that the executive committee of the medical staff is composed of members selected by the medical staff, or appointed in accordance with the

hospital bylaws. All members of the active medical staff, as defined in the Medical Staff Bylaws, are eligible for membership on the executive committee, and a majority of the executive committee members must be fully licensed physician members (Doctors of Medicine or Doctors of Osteopathy) of the active medical staff in the hospital;

5. Assure that the medical care of all patients remains under the supervision and direction of qualified, fully licensed physicians (Doctors of Medicine or Doctors of Osteopathy); and

6. Assure that the continued high quality of care, credentialing of physicians and other licensed practitioners, and effective quality assurance programs remain under the supervision and direction of fully licensed physicians.

There has been a considerable amount of activity surrounding the medical staff standards since the 1983 Annual Meeting, and the Board of Trustees believes that a progress report to the House is in order at this time.

At its July meeting, the JCAH Standards-Survey Procedures Committee reviewed a draft of the medical staff standards. The draft represented a consensus reached on key issues that had been identified during previous reviews. The provisions were in substantial agreement with the six AMA principles. The AMA commissioners on the committee, in compliance with the House of Delegates' action, requested that final action on the standards be delayed until another field review was conducted.

However, the committee voted to recommend to the JCAH Board of Commissioners that it approve the chapter on medical staff as amended for inclusion in the *Accreditation Manual for Hospitals*, provided that the board made no substantive changes in the draft. The committee further recommended that a field review of the chapter be conducted only if substantive changes were made by the Board of Commissioners in the proposed draft. Only the AMA commissioners opposed these recommendations.

The Standards-Survey Procedures Committee recommendations were considered by the Board of Commissioners at its August meeting. The Board made no substantive changes in the proposed language. The AMA commissioners again, in compliance with Substitute Resolution 116 (A-83), made a motion to conduct a field review before final approval of the language. The AMA motion was approved and the draft medical staff language was mailed during the last week of August to a field of more than 3,000 individuals and organizations for review and comment.

The Board of Commissioners action had the effect

This is AMA Board of Trustees Report H, submitted to the House of Delegates at its Interim Meeting in December 1983.

of delaying publication of a new medical staff chapter. The 1984 *Accreditation Manual for Hospitals* will contain the current (1983) language. The Standards-Survey Procedures Committee was scheduled to review comments resulting from the field review at its November meeting and to make a recommendation to the Board of Commissioners. The Board of Commissioners will vote on the committee's recommendation at its next meeting, which follows the 1983 Interim Meeting of the AMA House of Delegates in December. The effective date for new medical staff standards, if approved by the Board of Commissioners in December, has not been established.

Throughout the discussions of the Standards-Survey Procedures Committee and the Board of Commissioners, the AMA commissioners sought to have language included in the medical staff chapter that would meet the six principles adopted by the AMA House of Delegates. The draft that was mailed for review in August substantially complied with the actions of the House.

- All references in the title of the chapter and throughout the manual would be to the "medical staff."

- Specific references to limited licensed practitioners contained in the current manual would be deleted in most instances. The definition of the medical staff in the provisions in Standard I of the draft contains no specific references to any limited licensed practitioners. The only remaining references are contained in Standard IV (delineation of clinical privileges), which deals with limitations placed on privileges granted to nonphysician licensed practitioners to perform history and physical examinations.

- In accordance with the second AMA principle, other provisions in Standard IV would permit limited licensed practitioners to have hospital privileges consonant with their training, experience, and current competence, if approved by the normal credentialing process.

- Provisions in the draft would provide consideration of qualified limited licensed practitioners in accordance with state law and when approved by the executive committee of the medical staff and by the governing board and when their services are appropriate to the goals and missions of that hospital, taking into account their training, experience, and current competence. Standard I in the draft describes the definition, organization, and appointment mechanisms for the medical staff. It states that the medical staff "includes fully licensed physicians and may include other licensed individuals permitted by law and by the hospital to provide patient care services independently in the hospital."

- Clarification of the term "individuals permitted to provide patient care services independently," is provided by a glossary definition. It reads, "Any individ-

ual who is permitted by law and who is also permitted by the hospital to provide patient care services without direction or supervision, within the scope of his license and in accordance with individually granted clinical privileges. Clinical privileges are based upon criteria established by the hospital."

- The draft would provide that a majority of the members of the medical staff executive committee must be fully licensed physician members of the medical staff. The provision, found in Standard III, reads, "All members of the medical staff are eligible for membership on the executive committee, but a majority of the executive committee members are fully licensed physician members of the medical staff actively practicing in the hospital."

- The draft standards would assure that the medical care of all patients remains under the supervision and direction of qualified, fully licensed physicians (M.D.s and D.O.s). A provision in Standard IV states, "Each patient's general medical condition is the responsibility of a qualified physician member of the medical staff."

- A "qualified physician" is defined as "a doctor of medicine or doctor of osteopathy who, by virtue of privileges granted by the hospital, is permitted to perform a specific diagnostic or therapeutic procedure." Other requirements in Standard IV provide for a prompt medical evaluation by a qualified physician for patients admitted by nonphysician members of the medical staff who have admission privileges, and for the performance and/or confirmation of a history and physical examination by a physician on such patients.

- Several standards in the draft language address the concern expressed in Substitute Resolution 116 (A-83) that the continued high quality of care, credentialing of physicians and other licensed practitioners, and effective quality assurance programs remain under the supervision and direction of fully licensed physicians. Standards IV, V, and VI would assign to the medical staff the implementation of the process for the delineation of clinical privileges, the implementation of the process for reappointment and reappraisal of clinical privileges, and involvement in the hospital's quality assurance program. These provisions, in combination with the required majority of physician membership on the medical staff's executive committee, appear to comply with the provisions set forth in the sixth principle.

In other areas, the JCAH Board of Commissioners approved standard language relating to psychiatric/substance abuse services for inclusion in the *Accreditation Manual for Hospitals*; approved a *Hospice Standards Manual*, with an appendix to be used in the accreditation of hospital-based hospice programs; and approved the initiation of an organizational study of the JCAH.

Participation in the Political Process Through Support of AMPAC

The American Medical Political Action Committee (AMPAC) was formed in November 1961 following a recommendation from the Board of Trustees to the House of Delegates.

The purposes of AMPAC are stated in the Standing Rules:

- "to promote and strive for the improvement of government by encouraging and stimulating physicians and others to take a more active and effective part in governmental affairs.

- "to encourage physicians and others to know and understand the nature and actions of their government, the important political issues, and the records of office holders and candidates.

- "to assist physicians and others in organizing themselves for more effective political action and in carrying out their civic responsibility.

- "to do any and all things necessary or desirable for the attainment of the purposes stated above."

On several occasions since 1961, the House of Delegates has reaffirmed its support of AMPAC and urged members of the federation to support state political action committees (PACs). The AMA has been unceasing in its support of and work with state associations and their PACs in order to involve physicians and their families in the political process.

Today the record speaks for itself. There are effective medical political action committees in virtually every state, and they are most effective when backed by strong local medical society leadership. These state PACs and the work of AMPAC have helped create a deserved national reputation for political effectiveness for organized medicine. This political effectiveness draws fire from those who might have a different national agenda, such as Common Cause and other anti-AMA groups. These attacks must not be allowed to cloud the outstanding record of medicine's political and government participation.

Now is the time to recall some of the significant achievements in a record unparalleled in the American political process. For 22 years AMPAC has made numerous contributions to this process. AMPAC was the first to develop and use survey research for political campaigns. This technique is now used by both political parties and by almost every candidate for major office. AMPAC was the first to develop a system to prioritize precincts, which has also become basic in

every major campaign.

Since AMPAC was formed, over 3,500 PACs have started. AMPAC has played a major role in helping many of them by providing assistance in the areas of membership development, organization, and administration of a PAC.

AMPAC has long conducted activities and programs with the goal of increasing the involvement of physicians and their families in political and government affairs. This has encouraged physicians and their families to participate in candidate-support committees at the local level, to help manage campaigns, and to be candidates for local, state and national office. This grassroots participation has also been the goal of many other interests including organized labor, the business community, and agriculture.

AMPAC was the first to develop a campaign management course, working with both political parties and other early leaders in this activity, including the U.S. Chamber of Commerce. This year AMPAC has sponsored the development of a new campaign manager's training course and manual.

AMPAC is a leader in the use of legal and innovative candidate-support techniques, such as survey research and campaign television and radio ads. AMPAC also has a long history of working with consultants from both major political parties.

AMPAC has continued to develop studies of the various aspects of campaign techniques and voter behavior. Recently AMPAC pioneered in studies on the impact of negative campaign ads on the voting public and how a candidate should respond to such an attack. AMPAC also studied the voter who switched his/her candidate preference before election day, and through this study developed a model of what makes a voter switch candidate preference.

Over the period that AMPAC has been in existence, it has provided a means for hundreds of thousands of physicians and auxiliary members to be involved in the political process. AMPAC has raised and spent over \$12,000,000 in support of candidates willing to listen to medicine's views on health care issues.

In a recent survey conducted by the American Medical Association, over 65% of responding physicians indicated that political action was their professional responsibility. AMPAC and the state medical political action committees are the vehicle for physician participation in the political process.

During the 1983-84 election cycle the AMA and state medical associations are conducting 30 grassroots

This is AMA Board of Trustees Report II, submitted to the House of Delegates at its Interim Meeting in December, 1983.

seminars for physicians and their families to stimulate volunteer political action. The AMPAC Board will continue to explore innovative candidate-support programs and continue to use independent expenditures in a positive and supportive way which brings credit to the medical profession.

The Board of Trustees is aware of the attacks made on the voluntary contribution system and believes these attacks to be without merit. The PAC system is a legal and constitutional way for individuals to combine their resources and talent in support of common objectives.

In 1981 AMPAC commissioned Alfred Balitzer, Ph.D., of Claremont Men's College, to study the history of Americans joining together for political purposes to create a better nation and community. Out of this study *A Nation of Associations* was published. Over 15,000 copies have been distributed to universities and colleges, members of Congress, and the public. With the *Federalist Papers* as the cornerstone of an American's freedom to associate, Dr. Balitzer traced the traditional American habit of joining one's friends, neighbors and co-workers to defend a position, cham-

pion a cause or correct a social ill. He pointed to political action committees as a natural part of this American tradition but stressed the need for those who would involve themselves in PACs to go beyond the donation of money and to commit time and energy to the causes they support.

The Board of Trustees commends members of the AMPAC Board of Directors, past and present, for their leadership in the political action committee movement in general and for AMPAC in particular.

Further, the Board of Trustees reaffirms its strong support for physician/family leadership in the campaign process and encourages AMA members to participate on a personal level in the campaign of their choice.

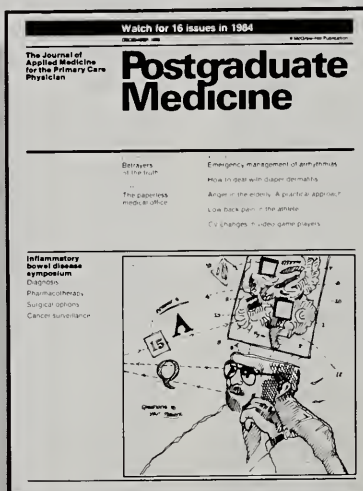
The Board urges members of the House of Delegates to reaffirm their commitment and dedicate themselves to the growth of the American Medical Political Action Committee and the state medical PACs.

The Board believes that better informed and more active citizens will result in better legislators, better government, and better health care.

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Competition in Medicine: Update II

Introduction

At the 1982 Interim Meeting, the House adopted two reports dealing with competition in medicine: Council on Medical Service Report E (I-82) and Board of Trustees Report E (I-82). CMS Report E [*J Tenn Med Assoc* 76:588-592, 1983] described the general effects of competition on the practice of medicine including: that the economic impact of competition will differ among physicians; that more aggressive efforts will be made by physicians and providers to attract patients; and that the nature of medical practice opportunities will change. CMS Report E also discussed in detail the following four aspects of medical practice where there is evidence of adjustments to increasing competition: changes in practice arrangements, relations between physicians and hospitals, reimbursement policies of third-party payors, and professional relations among physicians.

Board Report E (I-82) emphasized the following point: that the market produces incentives for a better medical care system than the alternative, regulation, and that to be successful in a more competitive environment, physicians will have to make deliberate efforts to match their practice patterns to changing patient needs and socioeconomic conditions. In addition, the Board described an AMA action plan designed to assist physicians in staying competitive in today's environment. The action plan indicated three broad areas in which additional information will be of assistance to physicians: availability of practice opportunities; organization of practice resources; and sources of medical practice finance. Within each of these three areas, the Board outlined specific products and services to be developed or expanded.

At the 1983 Annual Meeting, the House adopted Board of Trustees Report Z (A-83), which provided updated information on environmental conditions and on activities implementing the competition action plan.

This present report provides a further update of the activities undertaken pursuant to the Board's directive in Board Report E (I-82).

Update on AMA Action Plan

Physician Practice Opportunities

Several important steps have been taken to provide data and information to meet the needs of physicians seeking an initial practice opportunity, relocating or expanding an existing practice, or changing specialty.

- *Practice Profiles*: Data on average earnings and expenses, and volume and composition of patient visits for various specialties is now available to physicians

This is AMA Board of Trustees Report B, submitted to the House of Delegates at its Interim Meeting in December 1983. Past House Action: A-83:86-90; I-82:32.

through a new annual publication titled *Socioeconomic Characteristics of Medical Practice* and commonly referred to as the "Gray Book." Developed through the AMA Center for Health Policy Research, the Gray Book contains detailed tabulations of trends and variations across a range of physician practice characteristics, based on data collected through the AMA Socioeconomic Monitoring System. The detailed and timely socioeconomic data contained in the Gray Book will be an important resource tool to assist physicians with practice decisions in the changing practice environment. When used by physicians, it will provide critical information on a regional basis to assist in choosing an initial practice opportunity, changing specialty or locale, or expanding a medical practice.

- *Reports on Legal Considerations in Establishing a Medical Practice*: To assist physicians in understanding and responding to the myriad legal issues associated with establishing and maintaining a medical practice, the AMA Office of General Counsel is preparing a series of publications. The first, titled *Forms of Medical Practice*, introduces physicians to the various forms of medical practice, including sole proprietorship, partnership, professional corporation, and "S corporation," and explains the advantages and disadvantages of each. In addition, the report examines the most significant state and federal laws impacting on the organization of a medical practice. While not intended to substitute for the specific services of legal counsel, the guide will provide physicians with the necessary background information to make informed decisions as to the best form of practice for them. The publication will assist physicians in being able to ask the right questions and identify the issues involved in making such decisions. This publication will be made widely available and will be followed by additional publications on topics such as: *Pension Plans*—A general discussion of the types of plans, the limitations on contributions and profits, and the various legal requirements and factors affecting the choice of plan; *Organizing and Operating a Professional Corporation*—An analysis of the technical procedures involved in establishing and maintaining a professional corporation; *Legal Aspects of Group Practice*—An examination of the legal duties of partners to each other and of corporate shareholders to each other and to the corporation; *Establishing a Medical Partnership*—A discussion of partnership law and the factors to be considered in preparing a partnership agreement.

- *Market Area Profiles*: Considerable efforts are being directed to developing a system to provide current, accurate demographic, physician and hospital data to physicians. Data on a county-by-county basis currently exists, but is not readily available to physicians. Utilizing the AMA Physician Masterfile and the federal government's Area Resource File it is possible to

assemble a data base that will permit a physician to learn the key demographic, physician and hospital characteristics of a *county*. Prior to programming such a data base, two courses of action are being pursued: (1) Research is being conducted to determine what demographic, physician and hospital data is desired by physicians and whether providing such information on a countywide basis is useful; and (2) The possibility of developing a system that would permit a physician to receive key data and projections on *any size area* at a smaller than county basis anywhere in the country, the boundaries of which would be determined by the physician, is being vigorously pursued with outside computer software vendors.

Organization of Practice Resources

To assist physicians in acquiring additional managerial skills and becoming effective organizers of resources, the following activities have been pursued:

- *The Department of Practice Management* has expanded its programs to lend assistance to the practicing physician. In 1983, the department will conduct: 51 "Starting Your Practice" workshops; 26 "Computers in Private Practice" courses; 78 "Marketing Strategies for Private Practice" seminars; and 22 "Group and Partnership Practice" workshops. These sessions are sponsored by AMA and conducted at the Chicago offices and in locations throughout the country in cooperation with state, county and medical specialty societies. The staff is also providing training programs for medical office assistants in the areas of office management and patient relations. Such programs involve instruction in public relations, accounts receivable management, personnel supervision, and appointment scheduling. On a daily basis, staff handles requests by physicians for marketing and other information.

Recently developed products include: a videotape titled "Developing a Marketing Plan for Your Medical Practice" and a workbook; a patient survey questionnaire; and guidelines on preparing a patient information handbook. This brings to ten the number of publications in the area of practice management.

- *A series of articles have been published in AM News* relating to the issues of marketing, use of computers in physicians' offices, and competition, to keep readers informed of the latest developments affecting medical practice.

Through a series titled "Money Matters" readers have been provided information on marketing and on medical practice finance topics, such as tax shelters. Through a monthly series on "Computers in Medicine," *AM News* has provided additional information that can help physicians remain competitive in today's practice climate. In the articles, the reader is shown the numerous potential practical uses for computers in medicine. In addition, *AM News* has covered closely the current developments on the national, state and local level which involve competition and its practical impact on the physician. *AM News* will continue to print articles on these and other subjects in an attempt to keep physicians abreast of current "competition-related" developments.

- *The AMA Office of General Counsel* has prepared a publication on physician contracts which describes the various types of contracts and areas of par-

ticular relevance to the physician. The report is divided into two sections: the first examines various situations in which physicians may be contracting to deliver services, while the second sets out sample contracts. The guide will provide invaluable assistance to medical students, residents, and practicing physicians who are, or may be, confronted with varied contracts in the course of their professional careers.

- *The AMA is continuing to research, monitor, analyze, and report* on significant developments concerning preferred provider organizations (PPOs). The AMA Department of Health Care Financing and Organization conducted a survey earlier this year of the federation to identify PPOs in various organizational stages, and is now finalizing a publication on PPOs titled *A Physician's Guide to PPOs*. The guide is oriented toward physicians who desire additional background information to enable them to evaluate and make informed decisions regarding PPOs. It is vital that physicians gain a solid understanding of the nature and ramifications of PPOs. This publication is a first step in assisting physicians in this area. The AMA, through its various activities, will continue to take steps to provide physicians with current, accurate information on PPOs.

Medical Practice Finance

A growing problem faced by many young physicians concerns obtaining medical practice finance for a new practice. In recent years it has become more and more financially burdensome to set up a medical practice. The ability to compete effectively in the new health care marketplace requires knowledge of the sources of capital, and the advantages and disadvantages of various alternative financial arrangements. A new publication is being prepared to help meet this need. The guide will introduce the reader to the topic of medical practice finance, will explain the variety of funding sources available, and will examine the relative advantages and disadvantages of each. Together with the videotape on "Borrowing Money: What a Doctor Needs to Know," developed by the Department of Practice Management, the practicing physician will have available to him essential resources to gain knowledge and insight into the financial side of a medical practice.

Summary

The activities set out above represent a significant step toward providing physicians with the information and services needed to compete effectively in the health care marketplace. However, they are merely a first step; and for every step there are many others still required. The market will, in all likelihood, get more competitive, and the level of sophistication needed to compete effectively will increase. By continuing to emphasize the current activities designed to assist physicians and by promoting new ones, the AMA can help ensure that physicians are prepared to meet the challenges of the marketplace.

The Board of Trustees, along with the Council on Medical Service, will continue to study emerging issues relating to competition, and activities will continue to be developed, expanded, and refined to help physicians compete effectively.

Effects of Competition in Medicine II

Over the past three years the Council on Medical Service has devoted special study to the subject of competition in medicine. The Council's study of this topic has been the subject of two previous reports to the House of Delegates: CMS Report N (I-81), which provided a working definition of competition appropriate to the medical care sector, and CMS Report E (I-82) [*J Tenn Med Assoc* 76:588-592, 1983], which examined the general effects of competition and several specific aspects of medical practice in which important changes are occurring in response to competition including *changes in practice arrangements, relations between physicians and hospitals, policies of third-party payors, and professional relations among physicians*.

These reports have noted several trends contributing to an increasingly competitive environment in medicine which have motivated the Council's attention to this subject. First, the supply of physicians has been growing rapidly. Between 1970 and 1980, the number of physicians in the United States grew by 36% compared with growth of only 8% in the total population. This has been accompanied by an increased price-consciousness among patients and other payors resulting from the rising cost of health services. This is reflected by the increase in the share of the gross national product accounted for by health care services from 7.5% in 1970 to 10.5% in 1982. Finally, practice costs have continued to escalate. While in 1970 the share of practice revenues devoted to meeting expenses was 36%, this share had risen to 44% by 1982.

The present report is a continuation of the Council's study of the effects of competition. In particular, this report further discusses the general changes resulting from increased competition, and examines aspects of the increasingly competitive environment in medicine relating specifically to the expanding numbers and roles of allied health practitioners, and the increasing involvement of entrepreneurial entities in the health care sector. Examination of these topics was promised in CMS Report E (I-82).

General Effects of Competition

The working definition of competition adopted in CMS Report N (I-81) asserted American Medical Association support for a medical care market with elements of competition that allow the number of physicians to be determined insofar as possible by market forces, but oppose practice by unqualified practitioners; increase price-consciousness among consumers; promote cost-consciousness among physicians; and im-

prove the accessibility of information for both physicians and consumers. In addition, AMA policy supports fair market competition and neutrality of public policy among alternative health care delivery systems. In supporting these elements of competition in medicine, *the Council has emphasized that while competition is important in promoting cost-effectiveness in the delivery of care, it must be carefully balanced with professionally developed safeguards to ensure that quality of and access to care are maintained.*

CMS Report E (I-82) examined data collected through AMA's Socioeconomic Monitoring System (SMS) bearing on issues surrounding the general effects of competition in medicine and on specific aspects of medical practice currently undergoing change. The report found that the general effects of competition in medical practice are likely to be similar to the effects of competition on other sectors of the economy: Increased efforts will be made by physicians and providers to attract and retain patients; The impact of competition will differ among physicians, with negative impacts expected to be less for those who provide quality care in the most cost-effective manner and adjust their services to meet changing patient needs; and The nature of medical practice opportunities will change with respect to organization, location, and specialty. Recent results from SMS provide evidence of changes in medicine occurring already that are consistent with these predicted effects of competition.

Increased efforts by physicians to attract and retain patients are reflected in the extent to which physicians are employing marketing strategies. Although these activities have been less commonly employed in the medical sector than in other sectors of the economy, 40% of physicians in a recent SMS survey indicated that they have employed some marketing strategy or technique in the last five years.

The most common activity has been studies of community demographics to assess patient needs. Of physicians responding to the SMS survey, 27% had used such studies in the last five years. In addition, 13% of physicians have used surveys to learn about patient satisfaction with various aspects of their practices, 11% have opened satellite clinics and 9% have advertised their practice in the media. Smaller percentages of physicians have adopted other approaches—initiating a patient newsletter, hiring a marketing consultant, developing a written marketing plan for their practice and locating their practice in a nontraditional setting, such as a storefront or shopping center. Overall, these findings suggest that physicians are making a significant effort to adjust to a more competitive environment.

Variations in the impact of competition among physicians appear to be reflected by the extent to which physicians with different characteristics are employing

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marketing approaches and making other changes in their practices. For example, since physicians with more years of practice generally have better developed practices, they may be expected to experience less of an impact from competitive pressures than younger physicians. This expectation is confirmed by the larger percentage of physicians with ten or fewer years of practice who are employing marketing strategies and techniques compared with those with more practice years—46% compared to 38%. In addition, in response to increasing competition, there has been a resurgence of activities by young physicians which were once the norm: they are more likely than older physicians to be making more housecalls and are scheduling more weekend and evening office hours than two years ago.

The changing nature of practice opportunities is reflected by the emergence of a range of new types of practice organizations and payment arrangements. Preferred provider organizations and primary care network programs have received particularly wide attention in the last year as alternatives to more conventional payment arrangements. Although these types of plans are still not very widespread, approximately 20% of physicians have become involved with these types of programs in areas where they exist. In addition, 41% of physicians in areas with preferred provider organizations and 27% of physicians in areas with primary care network programs feel that the existence of these programs is creating greater competition for patients among physicians.

Another aspect of changing practice opportunities is reflected in the greater degree to which hospitals are providing ambulatory care services. In a recent SMS survey, 25% of physicians reported that the hospital at which they provide most of their patient care operates a freestanding ambulatory care center. Nearly half of these physicians indicated that this facility is a source of competition for patients.

These findings are indications of the rapidly changing environment of medical practice being caused by increasing competition in the health care sector. The Council has recognized that the changes being caused by competition will necessitate adjustments by physicians to a changing practice environment. The Association has implemented an action plan, described in Board of Trustees Report E (I-82), to assist physicians to remain competitive.

As noted earlier, CMS Report E (I-82) also discussed the specific impacts of competition on practice arrangements, physician-hospital relations, policies of third-party payors and professional relations among physicians. The balance of this report discusses two additional specific aspects of the medical practice environment in which changes are occurring reflecting significant response to competition.

Expanding Numbers and Roles of Allied Health Practitioners

Advances in medical science and technology have increased the need for a higher degree of technical specialization in the delivery of medical care. In addition, concern about the adverse impact of local physician shortages on access to care, particularly in rural

and medically underserved urban areas in the 1970s, prompted increased examination of the use of allied health practitioners in providing some primary care services and federal funding for their training. These developments have resulted in increased professional opportunities for nonphysicians to function in service roles which are more limited in scope and require less training than the physician.

Attention is now being directed toward the extent to which the expanding numbers of nonphysician practitioners may complement or duplicate the services provided by physicians, and their implications for patient care. Such attention has been sharpened by the increasing supply of physicians and concern over the potential impact for the quality of care of initiatives to further expand the roles of nonphysician practitioners, such as reflected in a recent District of Columbia legislative proposal to extend hospital privileges to a range of nonphysician practitioners.¹

The impact of the growth of nonphysician health practitioners varies with their function, size and trends. Based on functional and legal requirements, the professional opportunities available to nonphysician practitioners can usefully be divided into the following three distinct categories:

- professions providing only specified types of patient care whose members are limited licensed practitioners and deliver some types of care independent of any requirement to consult with a physician, e.g., podiatrists, optometrists and psychologists;
- professions providing technical support services under the direction of a physician, e.g., EEG technologists, radiologic technologists, EMT-paramedics and perfusionists; and
- professions providing some services that are often also directly provided by physicians, whose members may have limited licenses or certificates but who, at least under some circumstances, must function under the supervision of a physician or have a physician available for consultation, e.g., nurse practitioners, nurse midwives, nurse anesthetists and physician's assistants.

Information on growth trends among nonphysician practitioners indicates an overall increase in their numbers, although the degree of increase varies by category and individual profession. With regard to trends for the first category of professions above, Stambler² reported that the number of active podiatrists increased by 24% between 1960 and 1980, resulting in no change in the ratio of podiatrists to the population. During the same period, the number of active optometrists increased by 10% resulting in an increase from 8.9 to 9.9 in optometrists per 100,000 population. Dorken and Webb³ estimated that there were 25,510 licensed psychologists in 1976 and 35,100 in 1980—a 36% increase in five years.

Individuals in the second and third categories are often collectively referred to as allied health practitioners (AHPs), although some prefer not to be included under this general term. However, as a matter of convenience for purposes of this report they are identified together as AHPs. The recent expansion in the numbers of AHPs employed in medical practices is reflected in information provided by SMS. Between

1975 and 1981, the number of AHPs employed by physicians in office-based practices (excluding nurses) increased by 58%, from 31 to 49 per 100 physicians. A breakdown of the SMS data for 1981 (comparable breakdowns for 1975 are not available) indicate that every 100 patient-care office-based physicians accounted for the employment of 20 laboratory technicians, 16 medical assistants, seven physician's assistants, four nurse practitioners, two x-ray technicians, and one each of respiratory therapists, physical therapists, radiation therapists, and EEG technologists.

Although there is general agreement that there has been an overall increase in the numbers and types of AHPs providing services under the supervision of physicians, complete information on AHPs employed outside of medical practice settings is not available. In addition, that information which is available must be interpreted cautiously because of different sources and definitions. While the first physician's assistant (PA) and nurse practitioner (NP) training programs began in 1965, Scheffler⁴ reported that 5,800 nurse practitioners and 4,600 graduates of physician's assistants had graduated from programs funded by DHEW by 1976. According to the GMENAC study,⁵ by 1980 the estimated number of PAs had increased to 11,000. The American Nurses' Association reported that as of September 1977, there were 9,058 registered nurses actively licensed and working holding the title nurse practitioner.⁶ By 1981, 18,151 NPs had graduated from certificate and masters programs. The American Nurses' Association also reported that as of 1977, there were 13,046 registered nurses actively licensed and working holding the title nurse anesthetist and 576 currently employed with the title nurse-midwife. The National Center for Health Statistics estimated that in 1977 there were 2,000 nurse-midwives, not all of whom were in active practice.⁷

It is clear that the professions which provide technical support, those in the second category above, complement the physician in the provision of cost-effective and high-quality medical care. The degree to which professions in the remaining categories complement or duplicate physicians' services is less clear.

Since some of the services provided by individuals in these professions may also sometimes be delivered by physicians, continuing growth in their numbers may add to the competitive pressures created by the increasing supply of physicians. In addition, increased price-consciousness by patients and other payors and increased cost-consciousness by physicians and other providers may further change and expand the roles and growth of these professions in the future. These changes will be determined by market forces, and regulatory and legislative actions.

The influences of market forces on these factors may be partly exerted through changes in training requirements and third-party payment policies relating to these professions. The potential impact of regulatory and legislative action is suggested by the District of Columbia proposal, mentioned above, which would mandate extension of hospital privileges to a range of AHP and other nonphysician health practitioners, including some practitioners in unlicensed categories.

It has been hypothesized that employment of AHPs in medical practices may assist physicians in responding

to competition in two different ways. First, physicians may improve practice productivity and reduce the costs of services delivered by substituting AHP time for their own time for aspects of care for which AHPs are properly trained. Second, the employment of AHPs may make it possible for physicians to extend the range of services provided in their offices in an effort to attract more patients. The same considerations may also stimulate hospitals and other providers to employ increasing numbers of AHPs in response to greater competition.

The accuracy of these hypotheses remains undemonstrated. A potential advantage of physician employment of AHPs may be suggested by differences in number of visits between practices employing and not employing AHPs. A comparison between physicians who employed NPs or PAs in 1981 with those who did not indicates that those who did provided 103 patient visits per week and those who did not provided 86 visits per week. However, this comparison must be interpreted cautiously since factors other than the employment of NPs or PAs may contribute to these differences in visits per week. Furthermore, there may be differences in the overall use of resources, including the AHP complements, and in qualitative aspects of visits between practices employing and not employing PAs or NPs that must be completely assessed before any definitive statement about the cost-effectiveness of these individuals is possible.

While the employment of AHPs in medical practices may be able to improve the physician's ability to compete, AHPs practicing independently and in hospitals or other settings are likely to increase the sources of competition facing physicians. Some medical specialties have long faced competition from other professions in the provision of certain types of services. Other specialties that have not experienced this type of competition in the past may increasingly experience it in the future.

An appropriate role for AHPs has been recognized by the medical profession for many years. The Council continues to support the principles adopted by the House in Board of Trustees Report C (I-81) relating to allied health professionals who perform patient care functions under the direction and supervision of a physician, but are not licensed as independent health practitioners. These principles state that:

- The number and distribution of allied health manpower should be determined, insofar as possible, by processes of the market. The number of training programs should be determined by the market and the ability of each program to meet acceptable educational standards applicable in the United States. The number of students enrolled should be determined by the faculty and administration of the individual training institution. In addition, information about career prospects should be collected and widely disseminated by interested organizations, including the AMA.

- Both physicians and allied health professionals have legal and ethical responsibilities for patient care, even though ultimate responsibility for the individual patient's medical care rests with the physician. To assure quality patient care, the medical profession and allied health professionals should have continuing dialogue at state and local levels to determine the extent

of responsibility and scope of functions of allied health professionals that is conducive to the best care of patients.

In stating these principles, the report also noted the following points:

- "It is the position of the AMA that direct physician supervision is not required for all services performed by allied health personnel. With the increased specialization of modern health care, however, it is advantageous to have one individual with overall responsibility for the medical care of the patient. The physician is well suited by professional preparation to assume this leadership role."

- "Reliable mechanisms should exist to ensure that individuals in each profession possess medical skills commensurate with the patient care functions that may be delegated to them. Quality assurance of allied health professions should be met through accreditation of educational programs and voluntary credentialing mechanisms."

The AMA also recognizes that properly trained individuals licensed as independent practitioners may also provide certain types of patient care that are sometimes provided by physicians. Although they may contribute to a more competitive environment, appropriate opportunities for such independent practitioners to deliver patient care services may result in greater overall access to and cost-effectiveness of the health care delivery system without impairing the quality of care. The Council is concerned, however, about legislative proposals that would ease restrictions on the types of services that can be rendered by these practitioners to the detriment of the quality of patient care. Such proposals should continue to be opposed.

Increasing Involvement of Entrepreneurial Entities

During the past decade there has been a marked increase in the rates of entry and expansion of entrepreneurial entities in the area of medical care delivery. The organizations which are the focal point of attention are investor-owned corporations which own or manage multiple health care delivery facilities. Most of the growth in the role of investor-owned corporations over the past decade has taken place in the hospital sector. There is, however, increasing activity by these corporations in the areas of freestanding ambulatory care and long-term care facilities.⁸

The growing role of investor-owned corporations in the hospital sector is indicated in the data from the Federation of American Hospitals.⁹ These data show that between 1978 and 1982 hospitals in the United States owned by investor-owned hospital management companies rose in numbers from 438 to 668—an increase of 53%. This corresponds to a 45% increase in beds owned from 61,701 to 89,171. During the same period, there was a 48% increase (from 191 to 283) in the number of not-for-profit hospitals managed by these companies. This corresponds to a 57% increase in beds managed from 21,040 to 32,958. Altogether there were 41 investor-owned companies in early 1983 that owned or managed hospitals in 49 states. Most of the hospitals affected, however, are located in "sunbelt" states such as California, Florida and Texas.

In an SMS survey conducted earlier this year, for the first time a series of questions was asked to ascer-

tain the current extent of physician practice in association with investor-owned organizations. The results of the survey are as follows:

- About 14% of physicians reported that the organization controlling the hospital at which they provide most of their inpatient care was a for-profit investor-owned company. About 5% of physicians whose hospitals were not owned by an investor-owned company reported that their hospital was managed by such a company.

- Under 1% (0.9%) of office-based physicians reported that their main practice was in an organization owned by nonphysician investors and having the legal form of a for-profit corporation.

- Approximately 1% of physicians reported providing any patient services at a freestanding primary care or "emergency" center operated as part of a chain of centers owned by nonphysician investors.

These results suggest that, in spite of the recent rapid increase in activity by investor-owned organizations in health care delivery, the extent of physician association with these organizations is still not great. However, future SMS surveys will monitor changes in physician involvement with these organizations.

The growing presence of investor-owned organizations in the health care sector is, in part, the result of a perceived need for access to greater amounts of capital to finance advanced medical technologies. In addition, these organizations often promise managerial expertise that will assist in achieving economies in the delivery of care and in coping with the increased administrative complexities associated with medical practice. However, the primary objective of investors in entering the health care sector is to maximize the financial return on the investment. This involves acting so as to maximize the spread between gross revenue and total expenses over time. In pursuing this objective, investor-owned organizations may be expected to compete aggressively with physicians and providers in seeking economic reward for their investments; apply new forms of controls and restrictions over the manner in which physicians use resources in delivering medical care in order to ensure that resources are employed as profitably as possible; limit activities, such as residency training programs, which may not be deemed profitable; and seek only patients with adequate means of payment. The potential adverse consequences of these types of actions for the quality and accessibility of care is a shared concern of physicians and the public.

Some evidence has suggested that investor-owned hospitals may have at least as high, if not higher, unit costs and/or charges as comparable voluntary hospitals. Data from recent studies of this subject are summarized in Table 1. Lewin, Derzon and Margulies,¹⁰ studying matched samples of investor-owned and non-profit community hospitals in California, Florida and Texas, found that while there were no significant differences in inpatient costs per admission, total operating costs per patient day adjusted for outpatient visits were about 8% higher for the investor-owned hospitals. They also found that charges per admission for patient care were 17% higher, and that these charge differences were due mainly to higher revenues from ancillary services, such as laboratory tests, radiologic procedures and supplies, in the investor-owned insti-

TABLE 1

COMPARISON OF OPERATING EXPENSE FOR NONPROFIT AND INVESTOR-OWNED NATIONAL CHAIN HOSPITALS

	Expense Per Patient Day			Expense Per Admission		
	Nonprofit	Investor-Owned	% Difference	Nonprofit	Investor-Owned	% Difference
Pattison & Katz ¹² Data: 1980, California	\$386	\$407	5.7%	\$2,326	\$2,374	2.0%
Sloan & Vraciu ¹¹ Data: 1980, Florida	\$262*	\$255*	-2.7%	\$1,914*	\$1,830*	-4.4%
Lewin et al ¹⁰ Data: 1978, California, Florida and Texas	\$200*	\$216*	8.0%	\$1,370*	\$1,424*	3.9%**
Brown et al ¹³ Data: 1978, National***	\$194*	\$202*	4.1%	NA	NA	NA

*Adjusted for outpatient activity.

**Difference is not statistically significant.

***Comparison is between all community-systems hospitals and investor-owned hospitals; the latter is a subset of the former in this study.

tutions. Contrasting data with regard to cost were reported by Sloan and Vraciu,¹¹ who found that operating expenses per adjusted patient day in a sample of Florida hospitals were 2.7% lower for the investor-owned than for the nonprofit hospitals, while operating expenses per adjusted admission were 4.4% lower. However, Pattison and Katz,¹² reporting on a study of California hospitals, found that total operating expenses per patient day were 6.0% higher for investor-owned chain hospitals than for comparable voluntary hospitals and that expenses per admission were 2.0% higher. Their study also showed that administrative and fiscal service costs were 37% higher per patient day and 32% higher per admission in investor-owned chain hospitals. This finding fails to support claims that for-profit hospitals are more efficient or have economies of scale in administrative and fiscal services. In addition, Brown et al¹³ also compiled national data indicating that, for every bed-size category, investor-owned hospitals had a higher cost per adjusted patient day than the overall average for all community hospitals.

Differences in case mix, admission rates and length of stay may influence these findings among other factors. Nonetheless, the above data, while not conclusive, are the source of some concern as to the actual cost-effectiveness of care provided by investor-owned hospitals, and have led at least one observer to conclude that, "As businesses, the investor-owned chain hospitals may have been more successful at generating net income (before taxes) for their owners, but only by virtue of charging more per admission, not by operating less expensively. Judged not as businesses but as hospitals, which are supposed to serve the public interest, they have been less cost-effective than their not-for-profit counterparts."¹⁴

AMA policy is clear on the point that financial returns from the physician's provision of medical care should always be secondary to the medical needs of the patient. The primary objective of the investor-owned corporation, however, requires that physicians providing care in association with it make decisions which result in the most profitable use of the corporation's

resources. It, therefore, has a potential incentive to attempt to affect the affiliated physicians' practice behavior in ways that might conflict with the individual physician's medical judgment concerning individual patients. Theoretically, this incentive may partly be counterbalanced by the desire of the corporation to avoid a reputation for providing lower quality care, since such a reputation could be expected to reduce the demand for its services and thereby its gross revenue. Nevertheless, the potential incentive does exist. Further, the Council believes it to be different from the traditional incentives for individual physicians or groups of physicians to realize a financial return when they practice in a community, because such economic incentives for local physicians are accompanied by a *simultaneous* incentive to maintain personal and professional reputation. This combination of incentives has served the public interest well, because unfavorable public perceptions about quality of care reflect adversely on the local physicians in a way that puts more than income at risk. The investor-owned corporation does not have this same unique combination of incentives, in the Council's view, and can respond to adverse opinion about the quality of care simply by withdrawing investment capital and redirecting it to other locations or markets.

Efforts to attract sufficient capital from investor-owned organizations to finance increasingly capital-intensive medical technologies and obtain managerial assistance, however, is likely to be a continuing phenomenon in the health care sector. Investors will only be willing to offer their capital to meet the needs of medicine if they have the expectation of achieving a return at least as great as in alternative investment opportunities. The profit motive underlying this condition can serve an important function in our society by ensuring that capital is allocated to its most highly valued uses within the framework of a decentralized market economy.

Although recognizing the potential benefits in access to state-of-the art medical technologies and managerial expertise that may accrue from application of

the profit motive in the health sector, the medical profession must remain concerned first and foremost that the profit motive not be allowed to impact negatively on the quality and accessibility of care, or divert physicians from their primary professional responsibility for the well-being of their patients. Historically, physicians have always resolved conflicts between responsibilities to their patients and economic interests in favor of their patients. In adopting Board of Trustees Report GG (A-83) at its last meeting, the House of Delegates reaffirmed this long-standing principle and reiterated its belief that the quality of patient care should not be sacrificed to the pursuit of economic gain.

Conclusion

This report has discussed the recent findings and concerns reflected in the Council's ongoing study of issues relating to increasing competition in medicine. Two focuses of this report have been the expanding numbers and roles of allied health practitioners and the increased involvement of entrepreneurial organizations in the health care sector. Both of these changes in the medical practice environment have prompted concerns about the maintenance of a proper balancing of cost concerns with concerns over the quality of and access to care.

In particular, the increased involvement of for-profit entities in delivery aspects of health care will require continued careful study with respect to their impact on medical practice and on the quality, accessibility and

costs of health care. The Council will conduct such study and report further to the House of Delegates on this and other important aspects of increased competition.

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C I B A

The advertisement features six red pill bottles standing upright in a row. Each bottle has the brand name 'Ser-Ap-ES' printed vertically in large, bold, black letters. Below the brand name, on a black band, is a Roman numeral indicating the bottle's position in the series: XVIII, XIX, XX, XXI, XXII, and XXIII from left to right. To the right of the bottles is a white statue of a person sitting on a pedestal, leaning forward with their head resting on their hand in a contemplative pose. At the bottom of the advertisement, the active ingredients and their dosages are listed: reserpine 0.1 mg, hydralazine hydrochloride 25 mg, and hydrochlorothiazide 15 mg.

reserpine 0.1 mg, hydralazine hydrochloride 25 mg, hydrochlorothiazide 15 mg

Polypharmacy

CHARLES L. CLARKE, M.D.

We have all encountered patients, most often elderly ones, who regularly take a number of different drugs. It is not uncommon to see an elderly person taking ten or more different drugs at regular, and often frequent, intervals. Too often, it seems, we may fail to recognize that part, if not all, of the patient's problem may be related to this drug taking. Some observers have said that of all the elderly with cognitive problems, such as confusional states, memory problems, and even Alzheimer's pattern of mental disorder, 25% are drug-related. In most such patients the confusional state or cognitive dysfunction will clear when the drugs are stopped or properly adjusted.

The problem of the elderly patient who takes regularly a number of different drugs is compounded by the altered physiology that comes with aging. Liver function is diminished, so that drugs metabolized there are handled much more slowly. The kidney's excretory function is diminished and drugs that are ordinarily eliminated there are eliminated much more slowly. There is also less albumin and other protein in the plasma to bind the drugs. Such altered physiology can be expected to result in higher blood levels than we would normally see in younger patients. If then

the patient is taking several drugs, the problem may be considerably amplified, particularly in the case of the psychoactive drugs.

Very often, in my experience, this problem of polypharmacy is produced by the prescribing of capable physicians. We all know that our patients are prone to consult various specialists for different problems. Too often, it seems, a patient will fail to tell the physician what has been prescribed by the other doctors they are seeing, and in the rush of trying to get all our patients seen we physicians fail to inquire sufficiently into just what the patient is already taking. Consequently, capable physicians end up with overdressed patients. This happens more often than we like to think.

It is certainly desirable to treat the elderly patient with as few drugs and as small a dose as will get the desired effect. Before starting a new drug, we should consider stopping some other drug or drugs at the same time if we can. Above all, let's review each drug being taken frequently, and consider the need for its continued dosage. We have to always consider the possible effect of drugs in every diagnostic study we undertake, and this is especially so in the elderly.

One prominent geriatrician has said, "I have helped more patients by stopping drugs than I ever did by starting them." This is a fact to be remembered when considering a plan of treatment for an elderly patient.

From the Department of Community Medicine, University of Tennessee Center for the Health Sciences, Memphis.

Artifacts

W. BARTON CAMPBELL, M.D.

A 78-year-old man with chronic bronchitis was admitted to the St. Thomas Hospital emergency room in acute respiratory distress. Severe coughing had fractured ribs and he was being treated with transcutaneous electrical nerve stimulation (TENS) for control of pain. An electrocardiogram was obtained in the emergency room (Fig. 1).



Figure 1

Discussion

This tracing shows a spike at a regular rate of 250 per minute. His physicians were initially concerned about an arrhythmia, but these depolarizations are clearly of brief amplitude and are not followed by T waves. These sharp depolarizations resemble pacemaker spikes and are caused by the TENS unit. In addition to these spikes, QRS complexes with frequent premature atrial beats are discerned.

These small battery operated units usually have adjustable amperage varying from 0 to 112 mamp. The pulse rate is similarly adjustable on most

models and may be varied from 2 to 110 pulses per second. Depending on the electrode location, milliamperage, and skin resistance these depolarizations may readily be picked up with an electrocardiographic recording. In addition, they may inhibit some pacemaker activity.

When the patient's TENS unit was temporarily turned off and his tracing repeated (Fig. 2), the tracing clearly displayed the sinus tachycardia at a rate of 110 per minute with intermittent PACs and PVCs. The irregularities in the baseline of this tracing are due to skeletal muscle depolarization and there are minor nonspecific ST changes.

IMPRESSION: Multiple spike artifacts caused by a TENS unit.

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

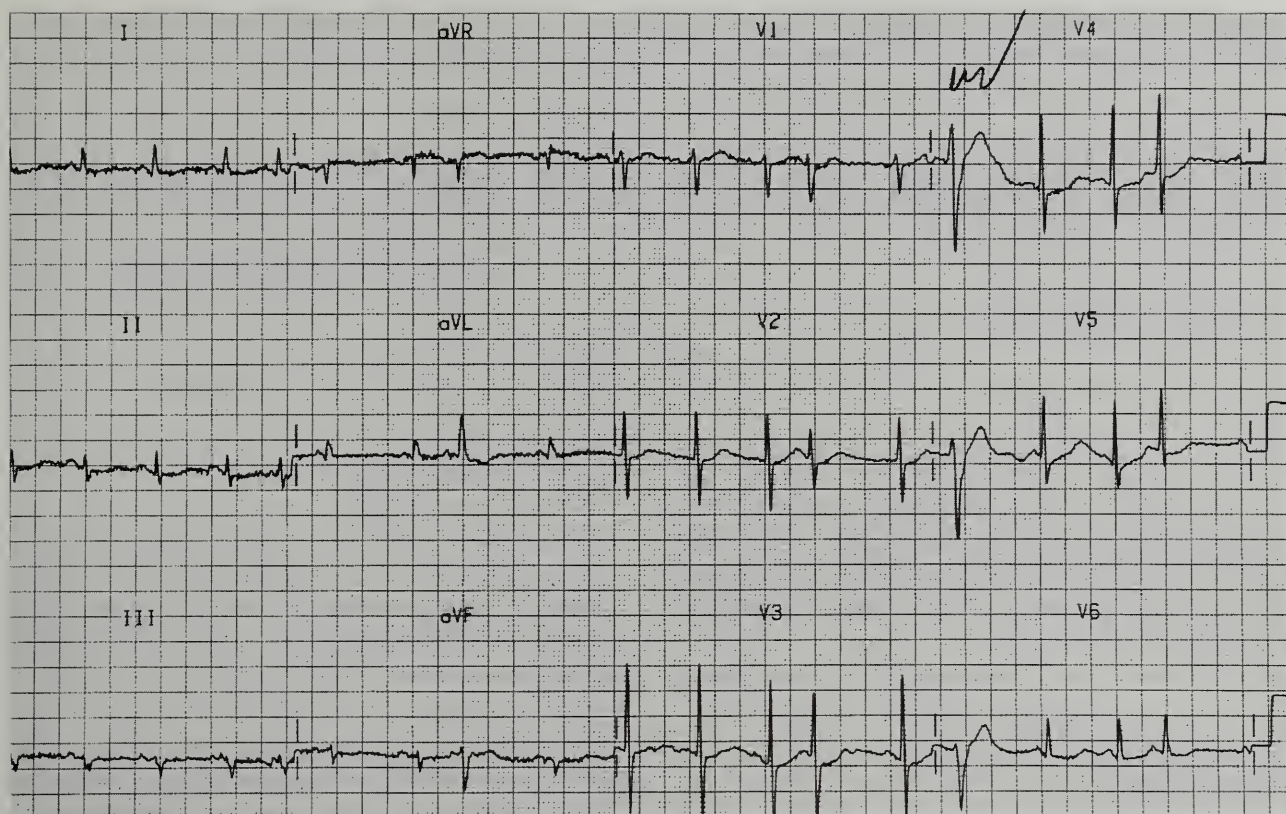


Figure 2

A 67-year-old man was seen for routine evaluation following coronary arterial bypass grafting. An electrocardiogram was obtained (Fig. 3).



Figure 3

Discussion

This tracing shows regular rhythmic baseline depolarizations occurring at a rate of 4 per second. The "saw-tooth" appearance of these depolarizations resembles atrial flutter but they are strikingly absent in standard lead III where P waves are seen. The QRS complexes are unrelated to the baseline depolarizations.

This patient had a resting tremor of the right hand and arm. The electrocardiographic depolarizations are caused by this tremor and are absent in lead III which is a left arm-left leg lead. The patient has been treated with Sinemet 25/250 three times daily with mild improvement.

IMPRESSION: Artifact due to Parkinson tremor of right hand.

System Failure

J. KELLEY AVERY, M.D.

In an effort to help our readers identify potential malpractice situations before they occur, this column will be devoted to a different case each month with comments on how you can avoid similar pitfalls.—ED

Case Report

During Mr. Jones' first visit to a physician in approximately ten years, he gave a history of having been a two-pack per day smoker for "several" years, and he did have a little "smoker's" cough. Three days prior to this visit he had noticed a small amount of blood in his sputum. Dr. Smith, a board certified family physician, told Mr. Jones he felt hospitalization was indicated for a thorough work-up of his complaints. Jones, very hesitant about hospitalization, agreed to a "short" stay in the hospital for the tests.

During the course of the work-up, his chest x-ray showed some enlarged hilar lymph nodes and was suggestive of a "little pneumonia." When further radiological examination showed what was believed to be granulomatous disease, several sputum specimens were obtained for AFB and cytologic examinations. The patient was discharged from the hospital before all reports were returned to the chart, so he was told to return to Dr. Smith's office in two weeks for follow-up.

Shortly after the patient's discharge, copies of his x-ray and sputum cytology reports were delivered to Dr. Smith's office. One of the cytology reports indicated "clusters of cells suspicious for squamous cell carcinoma." Dr. Smith briefly examined the report and made a "mental note" to follow up on this finding when the patient re-

turned. The patient did not, however, keep his follow-up appointment.

Mr. Jones did return to Dr. Smith about six months later with fever, aching, and persistent cough. Influenza was diagnosed and appropriate treatment recommended for the flu. Dr. Smith did not notice the suspicious sputum cytology report. The patient never returned.

Dr. Smith later discovered the patient had subsequently died of carcinoma of the lung after seeking treatment from another physician, who diagnosed lung carcinoma with metastasis to the brain.

Loss Prevention Comments

At least 40% of medical malpractice losses represent "system" failure. We set up some system to follow up on laboratory reports of this kind, and the system fails; a critical report is lost in the shuffle, and the treating physician finds himself in an almost indefensible legal position. This patient's care was excellent. His physician ordered appropriate tests and obviously was right on the mark as far as his work-up was concerned.

How can we avoid this type of system failure? First, there *must* be a procedure for handling *all* reports coming into the office from outside sources—i.e., hospitals, reference laboratories, pathologists, and consultants of all kinds. This system should recognize that the report of the laboratory work to the patient is a *must*. This can usually be handled by a phone call documented in the patient's records. However, when phone contact cannot be made, a registered letter, return receipt requested, should be sent to the last address of the patient.

In this case, an appointment was given when the patient left the hospital, but the patient did not keep the appointment. Neither this appoint-

(Continued on page 288)

Dr. Avery is the medical director of State Volunteer Mutual Insurance Company.

Patient Assessment as a Tool for Use In Long-Term Care

CARL E. ADAMS, M.D. and JUDY W. POWELL, R.N., M.A.

A common criticism has been that 40% of those in nursing homes do not need to be there. This type of criticism, especially when voiced by responsible governmental or regulatory agencies, is of critical importance. The purpose of patient assessment is to (1) establish that care is needed, (2) determine that the indicated care is being given, and (3) assure that the care being given is the most appropriate as regards cost and quality.

To establish this, certain questions need to be asked. The important consideration is that instead of poorly defined subjective criteria, there be established well-defined, objective criteria indicating the need for nursing home care. These questions are: (1) Are patients/residents being improperly placed? That is, could a substantial number of those admitted to nursing homes be adequately cared for in a less expensive, more comfortable environment? (2) Are patients/residents remaining in nursing homes longer than necessary?

These questions do not have easy answers. In the past, the nursing home was frequently the only available source of care for a fair proportion of the population. In reaching a decision, the reimbursement available, e.g., Medicaid, was important. The availability of the care needed was a valid consideration in placing the patient. The economics of a potential care-giver giving up a wage earning, family supporting job to stay at home with someone needing care too often has resulted in a no-win impasse.

The urgency to discharge patients from the acute care facility one or two days early, or from

the nursing home one or two weeks earlier for financial reasons, has too often resulted in early readmission, prolonged illness, or disaster. The economics of such decisions can be short sighted, ill advised, and expensive.

The advent of alternative forms of care, such as home health services, with liberalization of the criteria, has been of help in more properly placing patients.

Quality of life is a constant consideration; the most important factor from the patient/resident's point of view is probably loneliness; from the family's perspective it is guilt. These pose a constant challenge to all of us, and frequently there are no easy answers.

Comprehensive patient assessment assists in the rendering of adequate patient care and better management, and information is available for a resource data base.

Patient Care

Placement: By using comprehensive patient assessment, and with a well-defined set of objective criteria, admissions can be easily and uniformly controlled through proper placement. The exceptions can be readily recognized and quickly dealt with.

Level of Care: Level of care determinations have resulted in a great deal of frustration to practically everyone. The extent of participation in the skilled program, and the decisions as to the need for skilled or intermediate care, have too frequently represented an effort to control cost instead of being a response to the patient's needs.

A set of algorithms are available for the determination of need for skilled care. Although it is possible to change or modify these to satisfy most situations, once agreed upon they should not be

From the TMA Long-Term Health Care Committee, Dr. Carl E. Adams, chairman. Mrs. Powell is patient care coordinator and director of the Patient Assessment Program for National Health Corporation, Murfreesboro.

tampered with to meet the pressures of cost. It would be far better to restrict the admission criteria.

Patient Care Planning, Utilization Review, Drug Review, and Discharge Planning: These functions are all facilitated and more readily accomplished through an assessment process by identifying and flagging those conditions that are at variance with the generally accepted incidence. Profiles and summaries may be done, which over a period of time will afford a good perspective of what is happening to the long-term care patient.

Management

Matching of Needs and Services: Patient assessment provides to various levels of management factual information about problems and patient care needs in the facility. Resource material is available about past performance; present policies can be evaluated, and new ones developed as necessary, as can changes in services and staffing, and modifications in space and equipment.

Staffing: By determining the various types of nursing care given or that need to be given to patients with any of several types of disabilities and impairments it is possible to determine the amount and type of nursing time required per 24 hours. The total time indicated for a nursing station can then be calculated, and the staffing arranged accordingly.

Resource Data Base

The resource data base makes available a comprehensive compilation of statistics on a current basis in a standardized, uniform manner. This information can be used in many ways: in the study of special problems, statistical analyses, and the determination of quality assurance.

Requirements: Any system of patient assessment, in order to be readily usable and afford maximum retrievable information, should have an abstract (form) of limited length. It should use uniform, objective, concise definitions and terms. The system should be adaptable to change and it should be capable of being computerized.

There should be a comprehensive data set, which should include data needed for patient care and facility management, as well as that required by the various governmental agencies, intermediaries, and others. It should be a complete system, usable for patient care, management, regulation, reimbursement, and policymaking.

The assessment system should be reasonable in cost as to time and expense of materials and equipment. Extraneous information should be omitted. The lowest common denominators for identifying and measuring should be used. The information should be collected, analyzed, arranged in a standardized format, and made available to all groups and individuals wishing to use it.

P.O. Box 1398
Murfreesboro, TN 37130

Loss Prevention Case of the Month . . .

(Continued from page 286)

ment nor the missed office visit were documented in the patient's office record. No real proof of the appointment existed, so the discharge order to return to the office on a certain date was the only evidence that this appointment was made.

The consequences of a suspected positive cytology on the sputum specimen are so significant that courts have held that the treating physician

must use all reasonable means to notify the patient. Check the system *you* have for handling incoming laboratory reports, documenting appointments given on discharge from hospital, and documenting missed appointments on the patient's record. In this case a lot of grief, time, and money could have been saved with attention to this kind of detail.

Immunization Levels and Disease Incidence

HARRY B. WOODWARD

During the fall of 1983 the Tennessee Department of Health and Environment conducted self-surveys to determine the immunization status of children attending kindergarten and first grade in public and non-public schools, and children enrolled in day care and Head Start programs. Results from these four surveys are included in Table 1 and reflect the considerable continuing effort made by vaccine providers, educators, and child care personnel to assure the adequate immunization of children attending these facilities in Tennessee.

The continuing reduction of reported cases of mumps and pertussis and the current absence of indigenous measles and rubella in Tennessee are proof that the efforts made to immunize children attending these various facilities is achieving the goal of preventing these diseases. Table 2 reflects this success in disease prevention.

If we are to continue the low incidence of mumps and pertussis and the elimination of indigenous measles and rubella in Tennessee, we must not only maintain the high levels of immunizations reflected in Table 1, but also we must improve the immunization status of children under 2 years of age. During 1983, we conducted a survey to determine the immunization status of 1,504 children who were born in April, 1981 (24 months of age). Immunization recommendations of the American Academy of Pediatrics and the U.S. Public Health Service were used as criteria for determination of complete or incomplete immunization. Table 3 shows that less than 60% of these children were completely immunized for their age. Overall, there was no difference in the immunization status of children who received their immunizations from a private provider and those who received immunizations from a public

TABLE 1
RESULTS OF IMMUNIZATION STATUS SURVEYS, BY ANTIGEN,
TENNESSEE, 1983-1984 SCHOOL YEAR

Type of Survey	Number Children	All*	Percent Adequately Immunized			
			Diphtheria	Polio	Measles	Rubella
Public School	124,364	97.3	97.7	97.6	98.9	98.9
Non-Public School	7,947	96.4	96.9	96.7	97.1	97.0
Day Care	47,774	97.6	98.5	98.4	98.1	98.1
Head Start	7,864	98.1	98.4	98.5	98.4	99.1
TOTAL	187,949	97.4	97.9	97.8	98.6	98.6

*School = 4 DTP; 4 polio; 1 measles; 1 rubella.
Day Care, Head Start = immunized for age.

From the Tennessee Department of Health and Environment, Nashville. Mr. Woodward is director of the Immunization Program.

TABLE 2
**COMPARISON OF NUMBERS OF CERTAIN
VACCINE PREVENTABLE DISEASES,
BY YEAR, 1978, 1980, AND 1983, TENNESSEE**

Disease	1978	1980	1983
Measles	952	169	0
Rubella	215	41	0
Mumps	471	33	30
Pertussis	60	37	8

TABLE 3
**PERCENT OF 24-MONTH-OLD CHILDREN COMPLETELY
IMMUNIZED,* BY AREA, TENNESSEE, 1983**

First Tennessee Region	67.5
East Tennessee Region	55.1
Southeast Region	67.7
Upper Cumberland Region	61.2
Mid-Cumberland Region	61.2
South Central Region	55.3
Northwest Region	66.0
Southwest Region	61.9
Davidson County	58.3
Hamilton County	41.4
Knox County	62.5
Shelby County	40.0
State	57.0

*Completely Immunized = 4 DTP; 3 or 4 polio; 1 measles; 1 mumps; and 1 rubella.

provider.

Immunizations on a timely basis are easier to deliver than most other services because others are more complex and require more compliance from the family. Up-to-date immunizations measures only the *opportunity* for the provider(s) to serve the whole child. Absence of up-to-date immunizations indicates little opportunity to serve the whole child. Therefore, this fairly low level of up-to-date immunizations in the 24 month olds surveyed may indicate a need for further attention to this age-group's health care needs. The Department's efforts in the Governor's "Healthy Children Initiative" is being directed toward working with private and public child health care providers to enhance the health services these young children in Tennessee receive.

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BRIEF SUMMARY PROCARDIA* (nifedipine) CAPSULES

For Oral Use

INDICATIONS AND USAGE: I. **Vasospastic Angina:** PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component in where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion, in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. **Chronic Stable Angina (Classical Effort-Associated Angina):** PROCARDIA is indicated in the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance but confirmation of sustained effectiveness and evaluation of long-term safety in those patients is incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: **Excessive Hypotension:** Although in most patients the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: **General: Hypotension:** Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug Interactions: Beta-adrenergic blocking agents. (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates. PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Digitalis. Administration of PROCARDIA with digoxin increased digoxin levels in nine of twenty normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility. When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy. Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antihypertensive medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shyness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request

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Challenge 1984



THOMAS K. BALLARD

I thank you for allowing me to assume the presidency of the Tennessee Medical Association for the year 1984-85. I pledge to work diligently in performing the duties of the President, and to be responsive to the constituency which I serve. I follow a long line of outstanding leaders in the medical profession, and will do my best to meet the challenge which you have afforded me.

We are in changing times in the medical profession, as well as in the socioeconomic field. There are many problems and issues which we have to face and attempt to solve in 1984.

One of the pressing issues with which we are faced began in 1983, that of Diagnosis Related Groups (DRGs). DRGs coupled with Prospective Pricing System (PPS) will present challenges such as we have never had before. DRGs are 468 diagnosis groups in which the hospital admission of all patients covered by Medicare will be categorized. PPS is the dollar amount per DRG which each individual hospital will be paid for Medicare patients. PPS will be figured from a relative value of resources required for each DRG with regional weighting. There will be a distinction between rural and urban hospitals, with the rural hospital receiving approximately 40% less than the urban hospital for each DRG. As you can easily see, it will be necessary for the medical profession to work closely with the administrations of hospitals in order that the patients receive quality medical care within the reimbursement allowed for each DRG. DRGs and PPS will be phased in over a four-year period. You will remember that there were Regional Medical Programs, then Health Systems Agencies, Professional Standards Review Organizations, and now the government is going to try a Prospective Pricing System. The final consequence will be for the DRGs to eventually wind up in your office with all third party payments for outpatient visits being made to physicians based on the DRG concept. In December 1983, a bill requiring mandatory acceptance of assignment of Medicare payments by physicians was introduced into the Congress. Coupled with the assignment provision was the requirement that hospital privileges for each staff member be dependent upon 100% assignment for Medicare patients. The hospital would not be paid under Medicare unless the physician accepted the assignment for all Medicare inpatient services. The bill did not pass, but you may expect it to reappear in 1984. Please be observant of the Kennedy-Gephardt Bill that was introduced into Congress during February of this year.

Another challenge will be the issuance of the Section on Medical Staff by the Joint Commission on Accreditation of Hospitals which takes effect on July 1, 1984. The Joint Commission proposed changing their Medical Staff Section to an Organized Staff Section in response to a Federal Trade Commission investigation that threatened judicial action. This would have placed each section of the hospital staff under its own jurisdiction, e.g., medical staff, dental staff, limited licensed practitioners, and others. At its interim meeting in December 1983, the American Medical Association responded with a challenge to the Commissioners, asking them to change back to a medical staff. It was the feeling of the AMA House of Delegates that the quality of medical care within each hospital is a direct responsibility of the medical staff. The Joint Commission then changed its draft back to a medical staff. However, there will be the opportunity for limited licensed practitioners to admit patients to hospitals with prompt evaluation by a licensed physician. This is something which each individual hospital staff will have to deal with in its own way.

The malpractice situation will continue to be with us. In 1975, we saw the advent of the State Volunteer Mutual Insurance Company, in response to carriers of malpractice insurance removing themselves from the market in Tennessee. We can be justifiably proud of the strides that SVMIC has made in its short history. Statistics for 1983 revealed an increase of participants in this company of more than 200 physicians, making a total of more than 5,200 Tennessee physicians enrolled in our company.

Yes, we will be faced with many issues and challenges in 1984. May we rise to these issues and challenges as we have done in the past, and through cooperation provide quality medical care to our patients.

The decade of the 1980s will witness a definite change in the practice of medicine compared to past decades. *We can meet this challenge!*

A handwritten signature in dark ink, reading "Thomas K. Ballard M.D.", with a stylized flourish at the end.

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JOHN B. THOMISON, M.D., Nashville, Ex-Officio

MAY, 1984

editorials

Perspective

Monument Valley in northern Arizona is one of the most spectacular of all God's handiworks—or Nature's craft, as you prefer. When viewed from the valley floor the monumental rock formations are stupendous. Nonetheless, from the window of a Boeing 727 flying at 30,000 feet those craggy projections of the earth's crust appear as insignificant blots on the flat red-brown palette below.

Keeping one's perspective about such things is not too difficult, since it is really of little impor-

tance; thinking about them is a pleasant diversion when there is little else to do. When we begin to be threatened, though, even little things assume mammoth proportions, and our perspective goes flying out the window; the closer the threat comes to our pocketbook the more likely we are to become frightened—nay, hysterical.

In a more or less offhand way, in addressing health care costs the government revealed that the fiscal 1985 budget as proposed by the President would authorize expenditures by the Department of Health and Human Services (DHHS) of \$324.8 billion, which works out to \$36.3 million an hour in benefits to more than 60 million Americans. I submit that this figure was presented in such a way as to stagger the imagination and destroy perspective—an old ploy of government. Its clear message is that we *have got* to reduce health care spending. Well, let's dissect that statement and its message, and make some observations and comparisons so as to collect our wits.

In the first place, when broken down, that figure works out to about \$14 a day for each of those 60 million individuals, or \$5,000 a year—scarcely a staggering sum. In the second place, although the government would like the public to think so, by no means all of the HHS budget is health-related, except insofar as everything we do is in some measure related to our health. Speaking at the recent AMA Leadership Conference, Assistant Secretary of HHS for Health Edward N. Brandt, Jr., M.D., commented that we need to have a clearer definition of what is actually health-related; for example, acid rain has been called our number one public health problem, when in fact no health hazard at all has been traceable to acid rain. In its all-out drive to control medicine, the government has misled the public into ascribing a much greater cost to health care than actually exists.

Another bureaucratic misconstruction is the statement by the OMB that "11% of the population *consumes* 30% of the health care dollars." While it is true that the segment of the population over 65 accounts for this 30%, those health care dollars have not disappeared into thin air. They go to pay the salaries of the individuals who look after those sick folks and who make and sell the necessary supplies. Most of that money is spent locally, and much of the rest goes for taxes to help pay the salaries of the individuals who look after those sick folks and. . . . To say they "consume" health care is therefore a distortion

of the facts, one that appears deliberate. In the same vein, labor and industry, which profit from the expenditure, are said to "contribute" to paying the costs of care.

Outrage had been expressed that 10.5% of the GNP is consumed by health care, although 17% is spent on (not, please note, consumed by) recreation. I have not heard anyone call for regulation of the enormous salaries commanded by professional athletes. One of the commentators at the Winter Olympics, in addressing this issue, opined that such individuals, unlike those with such pedestrian skills as are exercised by, say, doctors (in fairness, he did not specify any particular calling) are one-of-a-kind phenomena, and deserve their rewards. Nevertheless, a guitar picker shows up on the streets of Nashville with his guitar as his sole investment, and a high school education (maybe), paid for by you and me; he is "discovered," and in a few years is collecting \$50,000 for an evening's appearance. An athlete attends college on a grant-in-aid, at no cost to himself, and goes on to a contract for several million dollars over the next few years, with income tax averaging to help him out.

I do not begrudge any of those people their income. In the first place, I would not change places with them for all their wealth. Though I think them overpaid for what they do, since their public is willing to subsidize them by paying exorbitant prices for tickets to watch or listen to them, buy their records, view their films, and so on, then I presume they are entitled to whatever they can rip from the public purse.

About a decade ago (more like 12 years, to be precise), Senator Teddy Kennedy started the decline in medical care with the remark that "health is an inalienable right, along with life, liberty, and the pursuit of happiness." Although he over-stretched himself, what he really meant—health care—has come to be so viewed by the majority of Americans. It should, ergo, be guaranteed by their Uncle Sam, and those purveyors of it should consider themselves so blessed to be a party to such a noble calling that they should be willing—nay, should clamor—to do it with little or no compensation.

It is clear that a public spending 17% of the GNP for recreation, 20% for transportation, and from 25% to 50% in taxes is going to find itself pinched by outlays for much of anything else. Hence the message that has come through loud and clear to the Congress—from the individual taxpayer, from industry, and from labor—is that

health care costs too much. Being largely hedonistic, our entire society has completely lost its perspective.

What the rest of society seems to forget in its cupidity is that the portion of the medical profession under the age of 40 or 45 is a part of that same society, and has become accustomed to the same perquisites that are claimed by labor and management. Our colleagues watch those in the legal profession steal from those they assist in gouging hard earned dollars from their adversaries or insurance companies, and have noted the legislative resistance to doing away with the contingency system, the legal profession's license to steal. This in itself is one of the most significant factors in increasing medical costs as they pertain to doctors' fees. As they watch, more and more of our colleagues determine to get theirs too.

Regulation such as is now being considered will only subvert the system, and medical care must ultimately deteriorate. Medicine will become a nine-to-five occupation instead of a profession. Until recently it was unheard of that policemen, teachers, firemen, and so on, let alone doctors, would ever strike. Now all do. Such regulation will ensure that more doctors will join in. With hospital emergency rooms feeling the economic pinch of DRGs, God help those who find themselves ill in the middle of the night out of earshot of their "regular" doctor.

Grasping the curtains on his bedpost, Scrooge implored the ghost of Christmas future to say what he had seen wouldn't be so. The spirit's implied answer was that only a change of heart would alter the picture. Not being prescient, I claim no insights that do not come from reading the signs of the times. When society loses its perspective, most of its elements lose their sense of humor, as well. This is indeed a bad sign—the proverbial ill wind that blows nobody good. I can feel it in my bones.

J.B.T.

P.S.—

A shopkeeper explaining to his son about ethics used as an example the case of a man who had given him a \$20 bill for an item that cost \$3.50. Mistaking it for a five, the shopkeeper had given \$1.50 in change to the customer, who had accepted it, and was walking out of the shop when the shopkeeper discovered his error. "Now about ethics," he said to his son, to which the youth

replied, "I get it. Ethics is whether you call him back or not and give him his correct change." "No," said his father, "you don't understand. Ethics is do I tell my partner or don't I?"

A day or so after the preceding editorial was set in type a letter addressed to the AMA arrived in the office of the Nashville Academy of Medicine, its author the disgruntled patient of a local allergist. She enclosed a form letter she had received from him having the salutation, "Dear Allergy Patient." The letter went on to explain that effective April 1 he was instituting a semi-annual surcharge of \$60, for which she would receive a quarterly statement of \$30. It invited her to feel free to contact his office should she have any questions. She complained that in addition to the surcharge, her shots had just gone up from \$10 to \$14. She knew the other patients were upset, too, she said, but they hesitated to make a formal complaint because the pain and expense of repeating all the tests under another physician more or less forced them to continue under his care. In fact, the Academy had been receiving calls for some time from others of his patients inquiring about the ethics of the surcharge, but fearing retribution they had declined to send a copy of the letter or even name the doctor, let alone take the case to the Grievance Committee.

By no means everything that is immoral is illegal, and there is, of course, nothing illegal about what the allergist is doing; furthermore, to formally call his ethics into questions would bring the Federal Trade Commission (FTC) down on our backs with the charge of price fixing, and consequently restraining trade. As far as the FTC is concerned, you see, we are a trade and not a profession. As far as the allergist is concerned, you see, we are a trade and not a profession. It is as simple as that. He and others like him go far toward proving the FTC correct. It does not require that the whole medical profession behave unethically—only a few.

The AMA has sought to dissuade the Congress from enacting legislation regulating doctors' fees by a promise that the profession will regulate itself with a fee freeze. In her letter, the lady opined that she was opposed to regulating fees on several grounds, but that she could in the end see no help for it when doctors behave in such a manner. I must confess that as a citizen of the United States neither can I. The letter, which arrived on the day of the monthly meeting of our Academy Board, moved one Board member to comment that it made him want to quit practicing

medicine.

It has always been that the unconscionable acts of the few bring dire consequences onto the many who are trying to act responsibly, ethically, and morally. The sad fact is that the number of the few is growing, and as the fence sitters watch, they tend to slide off on the money side. There is little the rest of us can do about it, now that our code of ethics has been rendered edentulous by the FTC.

When the final axe falls, and medicine becomes a regulated public utility, it will give me no satisfaction, but only pain, to say, "I told you so." How far hath the once proud profession turned merchant, mechanic, plumber, and purveyor of snake-oil fallen.

J.B.T.

In this Place

From the time I was old enough to comprehend pictures I was enthralled by the *National Geographic Magazine*, to which my father began subscribing in 1914, possibly accounting for my love of nature and my itchy feet. Some of my most vivid memories are voyeuristic identification with travelers to, among other places, the Valley of the Ten Thousand Smokes, Yosemite, and the land of the big trees. I learned it took half a dozen men or more with outstretched arms to encircle some of those giant Sequoias, and in one issue a photograph appeared of an automobile, with Teddy Roosevelt as a passenger, being driven through a hole in the trunk of one of them.

Most of those forest giants have gone the way of TR and his companions. Though awed by the huge trees, lumberjacks nonetheless chopped them down and cut them up by the thousands, as if by so doing they somehow exalted themselves. Indeed, there were photographs showing dozens of men astride some of the gigantic logs. Despite disclaimers from the lumber industry, reforestation will not replace such trees, which were already mature when Charlemagne was crowned King of the Holy Roman Empire. Only a few are still preserved, most in the national and state parks of our Pacific Coast. One of these parks is the Muir Woods, in Marin County, just north of San Francisco.

Sleeping in an ancient field with a stone for a pillow, Jacob dreamed of a stairway that ascended into heaven, with angels ascending and descending upon it. His words on awakening were,

"Surely the Lord is in this place." The seers who succeeded Jacob expanded our view of God to an assurance that God is not limited, but is everywhere present. Nevertheless, walking early of a morning through the dripping woods, where faint wisps of fog caress the topmost fronds of towering redwood pillars, awed by a stillness broken only by the occasional call of a bird and the inconstant babble of the brook that runs through the wood, one is apt to murmur with Jacob, "Surely the Lord is in this place." So strongly did some of the early wanderers through that forest feel His presence that walking through one grove between massive columns so like those of some great gothic basilica, they named it Cathedral Grove.

There are a lot of jokes, not entirely unjustified, about the Jehovah complex of doctors. Few (I hesitate to say none) of us aspire to Godhood, yet we do sometimes so impress our patients. Since the healing they need is seldom physical only, our patients sometimes need to feel that "surely the Lord is in this place"; they sometimes also need to know that "so is my doctor." When they do, jesting aside, they often want more than just our physical ministrations.

J.B.T.



Carter Hal Henard, age 75. Died March 15, 1984. Graduate of University of Tennessee College of Medicine. Member of Greene County Medical Society.

William Dozier Jones, age 62. Died February 27, 1984. Graduate of University of Tennessee College of Medicine. Member of Lincoln County Medical Society.

Lester Howard Shields, age 75. Died December 1, 1983. Graduate of University of Tennessee College of Medicine. Member of McMinn County Medical Society.

new members

The Journal takes this opportunity to welcome these new members to the Tennessee Medical Association.

CARTER COUNTY MEDICAL SOCIETY

Harold W. Burnette, M.D., Johnson City

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Steven H. Dowlen, M.D., Chattanooga
Mark S. Grimsley, M.D., Chattanooga
Michael E. Hildebrand, M.D., Chattanooga
Wayne V. Kim, M.D., Chattanooga
James P. Richmond, M.D., Chattanooga

LAKEWAY MEDICAL SOCIETY

John P. Stamer, Jr., M.D., Morristown

MAURY COUNTY MEDICAL SOCIETY

Moa Taz Toban, M.D., Columbia

NASHVILLE ACADEMY OF MEDICINE

Lori Adelson, M.D., Nashville
Vinita Anand, M.D., Nashville
Frank E. Carroll, M.D., Nashville
William H. Edwards, Jr., M.D., Nashville
Burton F. Elrod, M.D., Nashville
Sheldon M. Epstein, M.D., Nashville
Robert C. Jamieson, M.D., Nashville
Jennifer L. Kay, M.D., Nashville
John C. Koomen, M.D., Nashville

NORTHWEST TENNESSEE ACADEMY OF MEDICINE

Joseph D. Connell, M.D., Dyersburg
Mary S. David, M.D., Dyersburg
Steven R. Kinney, M.D., Ripley

RUTHERFORD COUNTY MEDICAL SOCIETY

Richard A. Rogers, M.D., Murfreesboro
William W. Sutton, M.D., Murfreesboro

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Gary Q. Casey, M.D., Bristol

SUMNER COUNTY MEDICAL SOCIETY

H. Wayne Hooper, Jr., M.D., Gallatin

WASHINGTON-UNICOI COUNTY MEDICAL SOCIETY

John L. Anderson, M.D., Johnson City
Robert L. Carbone, M.D., Johnson City

personal news

Pickens Gantt, M.D., Bristol, has been certified in reproductive endocrinology and infertility by the American College of Obstetrics and Gynecology.

Ronald L. Pack, M.D., has been elected chief of staff at Park West Hospital in Knoxville. Other new officers include *Kyle O. Rutherford, M.D.*, vice chief of staff; and *J. Samuel Marcy, M.D.*, secretary-treasurer.

TMA Members Receive AMA Physician's Recognition Award

Thirty-three TMA members qualified for the AMA Physician's Recognition Award during February 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Maysoon S. Ali, M.D., Waverly
Subhi D. S. Ali, M.D., Waverly
Leland L. Atkins, M.D., Memphis
Venkata R. R. Baredy, M.D., Chattanooga
Robert O. Begtrup, M.D., Clarksville
Joel R. Bender, M.D., Chattanooga
Sung J. Chung, M.D., Morristown
Samuel H. Dillard, Jr., M.D., Nashville
Jayanta K. Dirghangi, M.D., Memphis
Thomas C. Farrar, M.D., Nashville
Charles T. Faulkner, M.D., Nashville
J. Vance Fentress, M.D., Pulaski
James D. Green, M.D., Nashville
James A. Greene, M.D., Knoxville
Clifton E. Greer, Jr., M.D., Nashville
Harvey H. Grime, M.D., Lebanon
Charles W. Hawkins, M.D., Chattanooga

Felix A. Hughes, Jr., M.D., Memphis
Samuel J. Kuykendall, M.D., Columbia
Michael E. Kuzur, M.D., Nashville
Daniel P. Labrador, Jr., M.D., Chattanooga
John W. Laramore, M.D., Chattanooga
Granville A. Lawrence, Jr., M.D., Nashville
Vichien Lorch, M.D., Knoxville
Albert L. Maduska, M.D., Memphis
Thomas P. McGee, Jr., M.D., Johnson City
Dewey G. Nemec, M.D., Nashville
Reinaldo A. Olaechea, M.D., Crossville
Richard A. Orland, M.D., Nashville
Ronald E. Overfield, M.D., Nashville
Arthur K. Patterson, M.D., Nashville
Daniel R. Ramey, III, M.D., Memphis
Guy Zimmerman, Jr., M.D., Cookeville

announcements

CALENDAR OF MEETINGS

NATIONAL

- | | |
|----------|--|
| June 1-3 | Mid-Central States Orthopaedic Society—Lodge of the Four Seasons, Lake Ozark, Mo. |
| June 2-8 | Pan American Medical Association—Marrriott Hotel, New Orleans |
| June 3-7 | American Association of Immunologists—St. Louis |
| June 4-6 | American Society for Laser Medicine and Surgery—Hotel Utah, Salt Lake City |
| June 6-9 | International Symposium on Nasal Physiology and Surgery (sponsored by Amer. Rhinologic Society)—Hyatt Regency Chicago, Chicago |

- | | |
|------------|--|
| June 12-14 | American Diabetes Association—MGM Grand Hotel, Las Vegas |
| June 14-16 | American College of Cryosurgery—New York Sheraton Hotel, New York |
| June 14-16 | International Congress for Hair Replacement Surgery (sponsored by Amer. Assoc. of Cosmetic Surgeons)—Plaza Hotel, New York |
| June 16-22 | Association of Medical Illustrators—Hyatt Regency, Atlanta |
| June 23-24 | American Association for the Study of Headache—Hotel Meridien, San Francisco |
| June 28-30 | Society for Pediatric Dermatology—Caesar's Tahoe, Lake Tahoe, Stateline, Nev. |

STATE

- | | |
|------------|---|
| June 14-15 | Malpractice Prophylaxis (sponsored by Southern Medical Assoc.)—Peabody Hotel, Memphis |
| June 20-22 | Upper Cumberland Medical Society—Fall Creek Falls Resort Inn—Pikeville |

One Physician's View of the Role of the Hospice In Patient Care

GEORGE S. HESTER, M.D.

There can be no question that a modern hospital with its advanced diagnostic and therapeutic capabilities, and with well-trained and highly skilled personnel, is the ideal environment for management of many serious acute, as well as potentially curable or remediable chronic disorders. We live in an age when complete and permanent cure of cancer is an everyday occurrence. We all have friends, neighbors, or family who have undergone successful coronary artery bypass graft surgery. Combinations of chemotherapy and/or radiation therapy regularly produce complete remission in certain lymph node malignancies. Renal transplant is regarded as routine and enormous progress is being made in the field of liver transplant as well as in many other areas. But having said all of this, it must be added (as is all too well known) that modern medical science cannot now, and will never be able to, effect a cure in every case.

Physicians who practiced in the past seemed less troubled than are we today by their patients for whom they could offer no cure. In those days, relief of the pain and suffering associated with the disease was often viewed as the physician's major role. Today, medical practice is so strongly oriented toward cure that doctors may find themselves uncomfortable when caring for patients whom they cannot cure. We physicians may sometimes deal with our own discomfort by continuing to apply measures appropriate for cure long after it is evident to all concerned that cure is no longer possible.

The sudden deterioration in the condition of a patient with terminal illness causes a frightened family member to do that which our modern lifestyle conditions us, reflexly, to do—*call an ambulance!* Upon arrival of the ambulance at the home, highly trained emergency medical technicians apply their training in assuring the adequacy of an airway, administering intravenous fluids, and monitoring cardiac, respiratory, and neurologic functions while promptly transporting the patient to the hospital emergency room. Here a skillful, well-trained physician (who might be seeing the patient for the first time), assisted by competent nurses and other support personnel, acts quickly to

further stabilize the patient's vital functions until he can be transferred to the intensive care unit. By the time the patient's personal physician (who is well-aware of the prognosis) arrives at the intensive care unit, the nurses have the extrinsic equipment operating smoothly to support vital functions.

This hypothetical situation that I have described gives rise to what I will refer to as the "vicious triangle." The vicious triangle is a figurative concept in which the patient's family is at one corner, the nurses at another, and the personal physician at the third. The patient, who at this point might be too sick to interact in this dialogue, is not connected to, but is surrounded by, the sides of the triangle. Each party of the vicious triangle perceives that the other parties consider the only acceptable alternative to be the continuation of life-support technology until all signs of life disappear from the patient. In some cases this clearly gives rise to a situation where dying is *painfully, expensively, and needlessly* prolonged. In truth, the patient himself, as well as all parties linked by the vicious triangle, might have preferred that a simpler way could have been found.

The vicious triangle can develop in other situations, such as the decision to undergo major mutilative surgery which offers only small hope for cure. Likewise, under certain circumstances, radical courses of radiation therapy or chemotherapy might be elected due to situations similar to those created by the vicious triangle. In spite of the emotional appeal of doing everything possible, the simple truth remains that in some cases these procedures do little to lengthen life, and even less to improve its quality. My comments should not be interpreted in any sense as being supportive of euthanasia, to which I am opposed on both *moral* and *practical* grounds. I feel, however, that a clear distinction *can* and *must* be made between the concept of *preservation of life* and the concept of *prolongation of dying*. Preservation of life constitutes the core of any viable system of medical (or human) ethics. Prolongation of dying is clearly not necessary to ethical medical practice.

The hospice concept offers a practical, humane solution to the problem of the vicious triangle before it ever develops. Before a patient can be accepted for hospice care, the issue of curative vs. palliative care

Dr. Hester is medical director of Hospice of Murfreesboro.

has to be resolved in favor of palliative care at a time and a place when and where the issues can be calmly discussed and considered and a rational and informed decision made. Once an informed decision is made and agreed upon by the patient, the family, the personal physician, and the hospice, the issue of over-application of medical technology need never arise. The cruel dilemma of the vicious triangle need not become a factor in the patient's care. Thereby the patient is allowed to experience the terminal phase of his illness with minimal suffering; the family, the nurses and other caregivers, and the physician are spared many agonizing situations in which they superficially feel—or are made to feel—that they “must” do something, when their true, deeper feelings are that something less or simpler should be done.

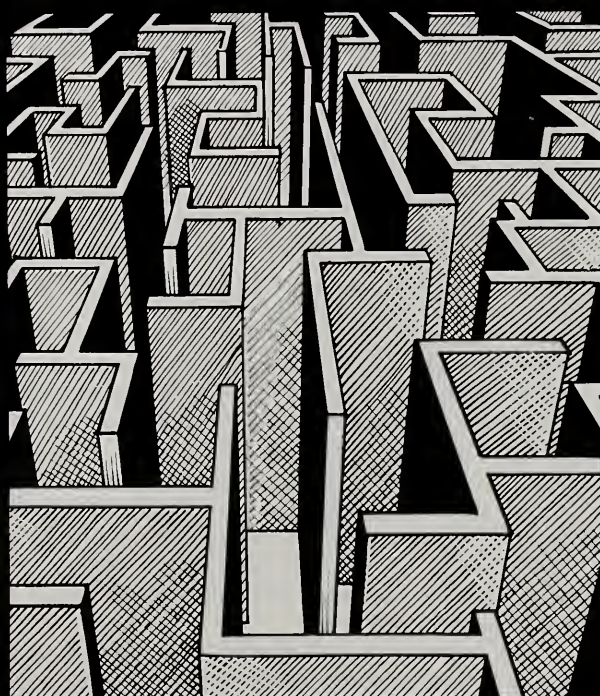
As medical technology has become more complex, more sophisticated, and more efficient, it becomes increasingly difficult for us to look upon death as the acceptable outcome of any illness—especially in a patient who has not attained what we consider to be an

extreme old age. This view, in my opinion, places unrealistic demands upon the medical care system and creates unnecessary tension when death does occur. This view also causes us to avoid realistic consideration of our own mortal nature.

It is well known that modern medical science has improved the length and quality of life in innumerable ways. For that we should all be truly grateful. But the fact remains that there are finite limits to the capability of medical science to prevent and cure disease. By acceptance of this ourselves, and, through our work with the hospice program, helping our patients, our friends, our neighbors, or perhaps members of our own families to accept these limitations of medical science, we will surely grow and develop as human beings, enrich our own lives, and come to accept the fact of our own mortality with greater equanimity.

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What makes these small towns big in medicine? Baptist Memorial Health Care System is there.

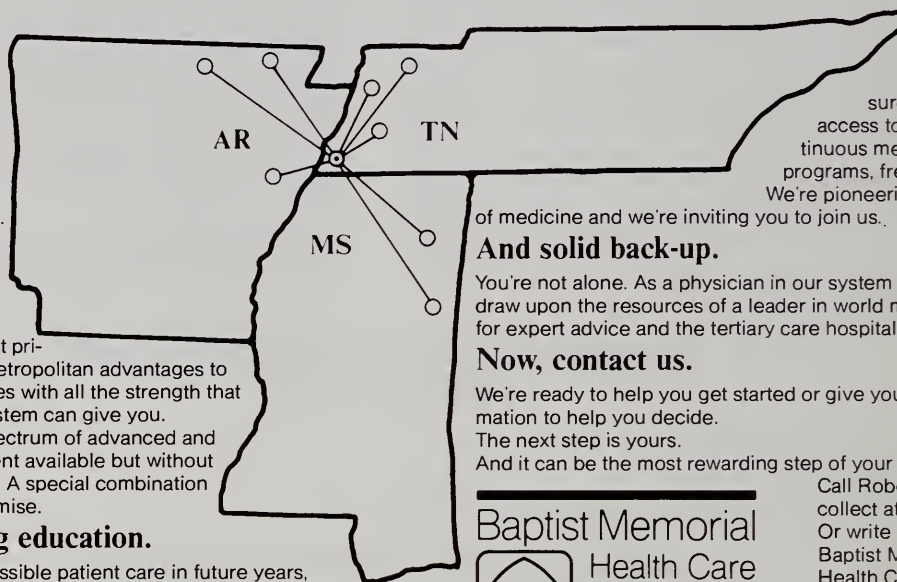
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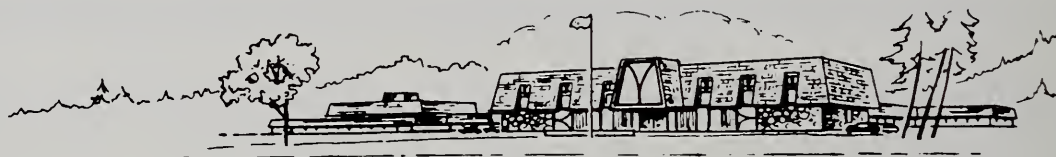
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holic and drug abuse patients. Another program is de-
signed specifically for adolescents. The adolescent treat-
ment program includes a fully staffed school program. An

individual education plan is designed for each adoles-
cent.

A variety of therapeutic programs are scheduled for each
patient's day. These include intensive individual psy-
chotherapy, group psychotherapy, community meetings
with staff and many collateral activities.

Patients may be referred to Peninsula by their own phy-
sician, former patients, or may be self-referred. Voluntary
patients as well as those who are directed to the hospital
by a court are accepted for treatment. It is desirable for
the hospital to receive information from physicians, ther-
apists, family and friends who know the patient. Treat-
ment is individualized based upon the needs of the pa-
tient.

Appointments for admission can be made by calling the
hospital directly. The phone numbers are:

Knoxville
Maryville

573-7913
983-8216

Abstract of the Proceedings of the House of Delegates Of the Tennessee Medical Association Knoxville, Tennessee—April 11-14, 1984

Call to Order

The 149th annual meeting of the Tennessee Medical Association was conducted in Knoxville, Tennessee, April 11-14, 1984, with headquarters in the Hyatt Regency Hotel. The House of Delegates met initially at 3:00 p.m., April 11, 1984, with Charles E. Allen, M.D., Johnson City, presiding as speaker of the House and Malcolm R. Lewis, M.D., Nashville, as vice speaker.

Invocation

At the opening session, John H. Burkhart, M.D., Knoxville, gave the invocation: "Let us pray. Almighty God, our Father, on such a glorious spring day the heavens declare the glory of God and the firmament displays your handiwork. With all that there is to be grateful for, why should we ask for more? Yet we do. And our specific prayer today is that you will endow this House of Delegates with the attributes it must have to truly represent a profession we believe to be nearer to the heart of God. Make us what you would tell us to be and guide us as you would have us to go. For without your power, direction and influence, we are nothing. Amen."

Report of the Committee on Credentials

George H. Wood, M.D., Knoxville, chairman of the Committee on Credentials, reported there was a quorum present. The speaker declared the House was in session.

1983 Minutes Approved

The speaker announced that an abstract of the minutes of the last regular session of the House of Delegates was reproduced in the June 1983 issue of the *Journal of the Tennessee Medical Association*. It was moved and seconded that the abstracted minutes of the 1983 session of the House of Delegates be approved as published in the June 1983 issue of the *Journal*. The motion was adopted.

Reference Committees

The speaker announced the members of the reference committees to consider reports, resolutions, amendments, and all matters requiring action by the House of Delegates.

REFERENCE COMMITTEE ON CREDENTIALS

George H. Wood, M.D., Knoxville, *Chairman*
James C. Bradshaw, Jr., M.D., Lebanon
Dennis A. Higdon, M.D., Memphis

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

John H. Burkhart, M.D., Knoxville, *Chairman*
John L. Farringer, Jr., M.D., Nashville
F. Hammond Cole, Jr., M.D., Memphis

REFERENCE COMMITTEE A

Hays Mitchell, M.D., Cleveland, *Chairman*
Paul R. Stumb, M.D., Nashville
Fenwick W. Chappell, M.D., Memphis

REFERENCE COMMITTEE B

Clarence E. Goulding, M.D., Johnson City, *Chairman*
Montie E. Smith, M.D., Selmer
John W. Lamb, M.D., Nashville

REFERENCE COMMITTEE C

Duane C. Budd, M.D., Johnson City, *Chairman*
Joseph L. Willoughby, M.D., Franklin
Phil E. Orpet, M.D., Memphis

REFERENCE COMMITTEE D

Dee J. Canale, M.D., Memphis, *Chairman*
Coleman L. Arnold, M.D., Chattanooga
Will G. Quarles, Jr., M.D., Livingston

COMMITTEE ON OUTSTANDING PHYSICIAN OF THE YEAR AWARD

George A. Zirkle, Jr., M.D., Knoxville, *Chairman*
Allen S. Edmonson, M.D., Memphis
George W. Holcomb, Jr., M.D., Nashville

Nominating Committee

As required in the By-Laws, the Board of Trustees appointed a Nominating Committee with representatives from each of the three grand divisions of the state. The speaker announced the committee members.

EAST TENNESSEE

Jack E. Butterworth, Jr., M.D., Bristol
John E. Strickland, Jr., M.D., Chattanooga
George A. Zirkle, Jr., M.D., Knoxville

MIDDLE TENNESSEE

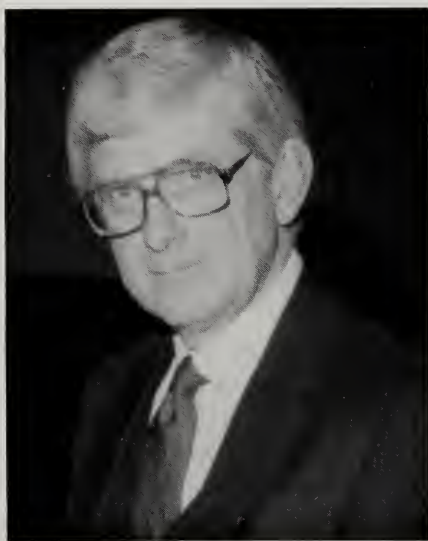
Lloyd T. Brown, M.D., Gallatin
James W. Hays, M.D., Nashville
Charles E. Jordan, III, M.D., Cookeville

WEST TENNESSEE

James T. Craig, Jr., M.D., Jackson
Phillip A. Pedigo, M.D., Memphis
Robert E. Clendenin, Jr., M.D., Union City

**ELECTION BY
HOUSE OF DELEGATES
APRIL 14, 1984**

The preliminary report of the Nominating Committee was presented in the first session of the House of Delegates on Wednesday, April 11, 1984. The final report of the Nominating Committee was presented on Saturday, April 14, 1984 at the closing session of the House. Nominees submitted by the committee were voted upon individually, and in each instance, the speaker called for additional nominations from the floor. The following were elected:



**Newly elected President-Elect
Clarence R. Sanders, M.D., Gallatin**

President-Elect—Clarence R. Sanders, M.D., Gallatin
Speaker—Malcolm R. Lewis, M.D., Nashville

Vice Speaker—F. Hammond Cole, Jr., M.D., Memphis

Vice President (East Tennessee)—

Harold L. Neuenschwander, M.D., Knoxville

Vice President (Middle Tennessee)—

Howard L. Salyer, M.D., Nashville

Vice President (West Tennessee)—

T. James Humphreys, M.D., Jackson

AMA Delegate (East Tennessee)—David H. Turner, M.D.,
Chattanooga (January 1, 1985-December 31, 1986)

AMA Alternate Delegate (East Tennessee)—

George A. Zirkle, Jr., M.D., Knoxville
(January 1, 1985-December 31, 1986)

AMA Delegate (East Tennessee)—William O. Miller, M.D.,
Knoxville (January 1, 1985-December 31, 1986)

AMA Alternate Delegate (East Tennessee)—

Charles E. Allen, M.D., Johnson City
(January 1, 1985-December 31, 1986)

AMA Delegate (West Tennessee)—Thomas K. Ballard, M.D.,
Jackson (January 1, 1985-December 31, 1986)

AMA Alternate Delegate (West Tennessee)—

Allen S. Edmonson, M.D., Memphis
(January 1, 1985-December 31, 1986)

AMA Delegate (Middle Tennessee)—John S. Derryberry,
M.D., Shelbyville (April 15, 1984-December 31, 1985)—
filling unexpired term of Charles B. Thorne, M.D.,
Nashville, who resigned.

AMA Alternate Delegate (Middle Tennessee)—Thurman L.
Pedigo, M.D., McMinnville (April 15, 1984-December 31,
1985)—filling unexpired term of John S. Derryberry, M.D.

TRUSTEES

East Tennessee:

Jack E. Butterworth, Jr., M.D., Bristol (1987)

Middle Tennessee:

Paul R. Stumb, M.D., Nashville (1987)

West Tennessee:

Arden J. Butler, Jr., M.D., Ripley (1987)

John S. Buchignani, M.D., Memphis (1987)

COUNCILORS

First District—Charles E. Allen, M.D., Johnson City (1986)

Third District—Robert W. Myers, M.D., Chattanooga (1986)

Fifth District—Sue Johnson, M.D., Shelbyville (1986)

Seventh District—Virgil H. Crowder, Jr., M.D.,
Lawrenceburg (1986)

Ninth District—James H. Ragsdale, M.D., Union City (1986)

THE ABOVE WERE ELECTED BY THE HOUSE OF DELEGATES

Petition for Transfer of County Society Charter

At the opening session of the House of Delegates, the Judicial Council reported that Johnson County desired to transfer its affiliation from Sullivan-Johnson County Medical Society to Washington-Unicoi County Medical Association. The Judicial Council endorsed this petition as did Reference Committee C.

ACTION: The House of Delegates approved this transfer pending affirmative action of the Washington-Unicoi County Medical Association relative to changing its name.

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

The speaker reported that there were two amendments to the Constitution lying on the table, one new amendment to the Constitution, and six new amendments to the By-Laws to be considered at this session by the House.

The proposed amendments to the Constitution and By-Laws are shown below, with proposed new language shown in **boldface** type and material to be deleted shown in *italics* and enclosed in brackets.

AMENDMENTS TO THE CONSTITUTION LYING ON THE TABLE

CONSTITUTIONAL AMENDMENT NO. 1-83

Editorial Review of Constitution

WHEREAS, There are a number of instances of improper punctuation and capitalization, awkward sentence structure, and archaic terminology in the Constitution of the Tennessee Medical Association. Now therefore be it

RESOLVED, That the following changes, primarily editorial in nature, be authorized to improve clarity and readability:

ARTICLE III

Component [S] societies shall *[consist of]* **be** those local [M] medical [S] societies which hold charters from this Association.

ARTICLE IV

Section 1. This Association shall *[consist]* **be composed of** [A] active, [*Members, A*] associate, [*Members, V*] veteran, [*Members,*] special, [*H*] honorary, [*Members, I*] intern and [*R*] resident, [*Members,*] and [*S*] student [M] members.

Section 2. The [A] active [M] members of the Association shall be active members of the [C] component [*Medical S*] societies who have been certified to the [S] secretary of this Association and whose dues have been paid for the current year.

Section 3. Associate members shall be commissioned officers in active service of the U.S. Armed Forces, and Public Health Service, residing in the [S] state, who are elected to membership by a [C] component [S] society and certified to the [S] secretary of the [*State*] Association as [A] associate [M] members. Such physicians may be eligible for active membership, if otherwise qualified.

Section 4. Veteran [M] members are those who, because of age or impaired health, have been elected [V] veteran [M] members of their [C] component [S] societies and who are so certified to the [*State*] Association annually by the [C] component [S] societies. Members who have attained age 70 in

the previous calendar year, or age 65 if fully retired, may be elected [V] veteran [M] members for the current and subsequent years. Members who are not practicing medicine because of impaired health may be elected [V] veteran [M] members during the first year of disability and thereafter for as long as the disability exists.

Section 5 . . . Eligibility for special membership shall be determined year to year **by the Board of Trustees** upon receipt of personal application of the physician or an active member representing the physician. [*by the Board of Trustees.*]

Section 7. An [I] intern or [R] resident [M] member is any doctor of medicine appointed and serving in an approved [I] intern or [R] resident status, [*serving*] in an approved hospital in Tennessee, and [*who is*] certified as an [I] intern or [R] resident [M] member of his component [*medical*] society.

Section 8. A [S] student [M] member is any student regularly and duly enrolled in a medical school in Tennessee, [*and who is*] a candidate for the degree of Doctor of Medicine, and [*who is*] certified by his [C] component [*Medical S*] society.

ARTICLE V

House of Delegates

The House of Delegates shall be the legislative and business body of the Association, and shall *[consist]* **be composed** of (1) [D] delegates elected by the [C] component [S] societies; (2) ex-officio the [O] officers; (3) [P] past-[P] presidents of the Association [*,providing they are members in good standing of the Tennessee Medical Association*]; (4) the Association's delegates to the American Medical Association; (5) the general officers of the American Medical Association, members of councils elected by the AMA House of Delegates, and [P] past-[P] presidents of the American Medical Association [*, provided such officials are members in good standing of the Tennessee Medical Association*]; (6) the Commissioner of Public Health and Commissioner of Mental Health and Mental Retardation for the [S] state of Tennessee [*,provided such officials are members in good standing of the Tennessee Medical Association*]; (7) the editor of the Journal of the Tennessee Medical Association. **All members of the House of Delegates must be members in good standing of the Association.**

ARTICLE VIII

Officers

Section 2. The Board of Trustees shall *[consist]* **be composed** of the [P] president of the Association, the [S] speaker of the House of Delegates, the [V] vice-[S] speaker of the House of Delegates, the immediate [P] past-[P] president, the [P] president-[E] elect, and members elected by the House of Delegates as hereinafter provided.

Section 4. The [P] president-[E] elect, the three [V] vice-[P] presidents, the [S] speaker and [V] vice-[S] speaker of the House of Delegates shall be elected annually for one year. The [S] speaker and the [V] vice-[S] speaker [*of the House*] shall hold office for not more than four consecutive years. The [P] president-[E] elect shall assume office as [P] president at the expiration of the term of the [P] president.

Section 8. Only a member [*who has been a member*] in good standing for the five years [*next*] **immediately** preceding the election, [*and*] **who** is in attendance at the meeting, shall be eligible for election as [P] president-[E] elect.

ARTICLE IX

The Powers and Duties of the Board of Trustees

Section 3 . . . The Board of Trustees shall render at the

[A] annual [Session] meeting a full and detailed accounting of all receipts and disbursements.

Section 5. The Board of Trustees shall [be the Executive Board of the Association to] determine the policy and details of management between sessions of the House of Delegates.

ARTICLE X

Fiscal Year and Dues

Section 2. [The annual dues of Active Members shall be fixed in the By-Laws. No dues shall be paid by Veteran, Associate, Student, or Honorary Members, (Chap. IX.)]

Section 2. The annual dues of members shall be determined by the House of Delegates. No dues shall be paid by veteran, special, associate, student, or honorary members.

ARTICLE XI

Referendum

[The General Meeting of the Association may, by a two-thirds vote of the members present and voting, order a general referendum upon any question pending before, or already decided by the House of Delegates. The House of Delegates may, by a similar vote of its own members, or after a vote of the general meetings, submit any such question to the membership of the Association for a final vote. If the persons voting shall comprise a majority of all the members registered at that Annual Meeting, a majority of such vote shall determine the question and be binding upon the House of Delegates.]

The House of Delegates may order a referendum of the membership on any question pending before or already decided by the House of Delegates. A vote of two-thirds of the delegates present and voting is required to order a referendum. The Board of Trustees will conduct a referendum by order of a petition of twenty-five percent of the general membership. A majority vote of the membership shall determine the question and be binding upon the House of Delegates.

ARTICLE XIII

Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the [D] delegates registered at the [A] annual [Session] meeting, provided that such amendment shall have been presented in open meeting at the previous [A] annual [Session] meeting, and that it shall have been sent officially to each component [S] society at least two months before the [Session] meeting at which action is to be taken. However, changes in the Constitution that are editorial in nature, as determined by the House of Delegates, can be made at the meeting at which they are proposed.

ACTION: ADOPTED

CONSTITUTIONAL AMENDMENT NO. 2-83

Changes in Election Procedures and Terms of Certain Officers of TMA

RESOLVED, That Article VIII of the Constitution of the Tennessee Medical Association be amended as follows:

Section 2. The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the Vice Speaker of the House of Delegates, the Immediate Past-President, the President-Elect, and members elected by the House of Delegates as hereinafter provided.

Nine members of the Board of Trustees shall be elected by the House of Delegates, three from each grand division of

the State, and no more than two from any one component society.

The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself, except that this provision shall not apply to a Trustee who by virtue of election or appointment has served any portion of another's unexpired term. The Board of Trustees will organize by the election of a Chairman, and a Secretary-Treasurer from the nine elected as Trustees. No member shall serve on the Board of Trustees for a period of more than ten consecutive years.

Section 4. The President-Elect, the three Vice-Presidents, the Speaker and Vice-Speaker of the House of Delegates, shall be elected annually for one year. The Speaker and Vice-Speaker of the House shall hold office for not more than [four] three consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President.

ACTION: ADOPTED

AMENDMENT TO THE CONSTITUTION

CONSTITUTIONAL AMENDMENT NO. 1-84

Delegate from Department of Health and Environment

WHEREAS, The Tennessee Medical Association desires to have official representation from the Tennessee Department of Health and Environment in the House of Delegates; and

WHEREAS, the present Commissioner of Health and Environment is ineligible to be a delegate in that he is not a doctor of medicine. Now, therefore be it

RESOLVED, That Article V. (6) be amended as follows: The Commissioner of [Public] Health and Environment and the Commissioner of Mental Health and Mental Retardation for the State of Tennessee or the chief medical officer of either of these departments if the commissioner is ineligible [provided such officials are members in good standing of the Tennessee Medical Association]; and

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—recommended adoption of Constitutional Amendment No. 1-84 as amended.

ACTION: Lying on the table to be acted upon during the House of Delegates session at the 1985 annual meeting.

AMENDMENTS TO THE BY-LAWS

BY-LAW AMENDMENT NO. 1-84

Editorial Review of By-Laws

The House of Delegates adopted By-Law Amendment No. 1-84 which was a voluminous document making primarily editorial changes. Upon publication, these changes will be forwarded to each component society and are available from the TMA office to any member upon request.

BY-LAW AMENDMENT NO. 2-84

AMA Delegates

WHEREAS, The Tennessee Medical Association is currently authorized to elect six representatives to the House of Delegates of the American Medical Association; and

WHEREAS, Equitable representation from the three grand divisions of the state should be assured. Now, therefore be it

RESOLVED, That Chapter IV, Section 5 of the By-Laws be amended as follows:

It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, for a period of two years [*no two residing in the same grand division of the state, except when more than three delegates are authorized*]. **When numerically possible, there shall be an equal number of delegates and alternate delegates from each grand division of the state. Whenever such is not possible, no grand division shall have more than one delegate or alternate delegate majority over another grand division.** The Association shall pay the expenses of each delegate representing the Association at the American Medical Association meetings, and the extent of payment of expenses to alternate delegates shall be determined by the Board of Trustees.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended adoption of By-Law Amendment No. 2-84.*

ACTION: ADOPTED

BY-LAW AMENDMENT NO. 3-84

Student Members

WHEREAS, There were 134 student members in the Tennessee Medical Association on December 31, 1983; and

WHEREAS, Participation by these members in the business affairs of the Association is deemed desirable and appropriate; and

WHEREAS, Resolution No. 1-77 has not been implemented completely with respect to student member eligibility to vote and hold office. Now, therefore be it

RESOLVED, That Chapter IV, Section 2 of the By-Laws be amended as follows:

Section 2. Each component society shall be entitled to send to the House of Delegates each year one delegate for every fifty active, veteran, and intern and resident members, and one for every fraction thereof, based upon the number of such members in the component society in good standing as of December 1 of the year preceding the session of the House. **Each component society shall also be entitled to send one student delegate from its membership to the House for each medical school in its territorial jurisdiction . . . relating to general welfare corporations; and be it further**

RESOLVED, That Chapter XII, Section 3 of the By-Laws be amended as follows:

Section 3. Every reputable physician who is legally licensed and registered in Tennessee, or any other state of the United States, who is practicing or who will agree to practice non-sectarian medicine, shall be eligible for membership. In-

terns and residents serving in approved hospitals in Tennessee and in accordance with Tennessee Code Annotated 63-605 (a), but who are legally licensed and registered in Tennessee, shall also be eligible for membership. **Medical students who are in good standing in approved medical schools in Tennessee shall also be eligible for membership.** Veteran members who are otherwise qualified but whose licenses have been revoked solely for failure to register shall continue to be eligible for membership. Each component society shall judge the individual qualifications of its members. Component societies may establish an affiliate membership category for health professionals other than physicians if this is deemed appropriate for local purposes, but only physicians who are active, veteran, intern or resident members **and students** who are members in good standing of the Tennessee Medical Association may be elected to office in a component society or to represent it in the House of Delegates of the Tennessee Medical Association. Physician members **and student members** of component societies must also be members of the Tennessee Medical Association. . . .

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended adoption of By-Law Amendment No. 3-84.*

ACTION: ADOPTED

BY-LAW AMENDMENT NO. 4-84

Mediation/Peer Review Committee

WHEREAS, The By-Laws of the Tennessee Medical Association call for the standing committees to include both mediation and peer review; and

WHEREAS, the composition and purpose of the committees are very similar in nature with immediate past-presidents being the members of both; and

WHEREAS, the workload could be easily handled if the committees were consolidated using the five most recent surviving past-presidents if they are available. Now, therefore be it

RESOLVED, That Chapter VIII, Section 15 of the By-Laws be deleted in its entirety and Section 16 be renumbered to read Section 15 and amended as follows:

Section 15. The Peer Review Committee shall be composed of the last five surviving past-presidents **who are available.** The past president [*with the most seniority*] **who has served on the committee for the longest period** will serve as chairman. [*for one year. The Chairmanship shall follow this rotation each year with the out-going President becoming a member of the Committee each year.*]

. . . The Committee shall also review and investigate complaints on appeals from component society mediation committees, appeals or suggestions from physicians or laymen concerning professional conduct. It shall attempt to find the facts regarding any matter brought to its attention through proper procedures and to mediate differences between patients and physicians and between physicians.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended adoption of By-Law Amendment No. 4-84 as amended.*

ACTION: ADOPTED AS AMENDED

BY-LAW AMENDMENT NO. 5-84

Non-Physician Affiliate Members

RESOLVED, That Chapter XII, Section 3 of the By-Laws be amended as follows:

... Component societies may establish an affiliate membership category for **other** health professionals [*other than physicians*] if this is deemed appropriate for local purposes, but only physicians as defined in Article IV, Section 9 of the Constitution are eligible for membership in the Tennessee Medical Association. . . .

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended adoption of By-Law Amendment No. 5-84.*

ACTION: ADOPTED

BY-LAW AMENDMENT NO. 6-84

Office of Vice-President

WHEREAS, The vice-presidents of the Association have the duty to assist the president in the discharge of his duties as requested by the president; and

WHEREAS, Circumstances could prevent the president of the Association from serving his complete term of one year. Now, therefore be it

RESOLVED, That Chapter VI, Section 1 of the By-Laws be amended as follows:

... [*In the event of his death, resignation, inability to serve, or removal from office, the President-Elect shall succeed to the Presidency. Such a circumstance shall not prevent the President-Elect from then serving as president during the term for which he was originally elected*] . . .; and be it further

RESOLVED, That Chapter VI, Section 2 of the By-Laws be amended as follows:

Section 2. The Vice-President shall assist the President in the discharge of his duties, as requested by the President. In the event of the death, resignation, inability to serve or removal from office, the Vice-President from the same grand division shall succeed to the presidency for the remainder of the term.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS—*recommended nonadoption of By-Law Amendment No. 6-84.*

ACTION: NOT ADOPTED

RESOLUTIONS

The reference committees have the option of recommending a resolution for adoption or rejection, for adoption as amended or substituted for referral, or for no action. The resolutions that follow are in the form in which they were adopted, not adopted, or referred by the House of Delegates. Resolution No. 19-84 was withdrawn.

RESOLUTION NO. 1-84

Protective Head Gear for Horseback Riders

BY: JAMES T. CRAIG, JR., M.D., CHAIRMAN
SUBCOMMITTEE ON SPORTS MEDICINE
COMMITTEE ON EMERGENCY MEDICAL SERVICES

WHEREAS, The State of Tennessee is noted for its fine horses; and

WHEREAS, There is a large proportion of persons engaged in horseback riding activities in the State of Tennessee; and

WHEREAS, Horseback riding accidents are a leading cause of injuries from recreational activities; and,

WHEREAS, these accidents can lead to serious head injuries with resultant death and permanent residual effects. Now, therefore be it

RESOLVED, That the Tennessee Medical Association recommend that educational programs be given to parents, riding instructors, show organizers, and managers outlining the risks of horseback riding and methods to minimize them; and be it further

RESOLVED, That the Tennessee Medical Association recommend that satisfactory protective head gear, such as those recommended by the United States Pony Clubs, be selected for each type of riding activity and worn when riding or preparing to ride; and be it further

RESOLVED, That the Tennessee Medical Association recommend that riding schools, horse shows, rodeos and other equestrian events be urged to require that protective head gear be worn during such activities; and be it further

RESOLVED, That a copy of this resolution be distributed to the state 4-H Extension Specialists, and other organizations which are concerned with horseback riding; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 1-84.*

ACTION: ADOPTED

RESOLUTION NO. 2-84

Tennessee Medical Association Auxiliary

BY: FRED A. KILLEFFER, M.D., PRESIDENT
KNOXVILLE ACADEMY OF MEDICINE

WHEREAS, The Tennessee Medical Association Auxiliary for 56 years has assisted the Tennessee Medical Association in its programs to advance medical care and improve the public health; and

WHEREAS, The cultivation of good relations and promotion of mutual understanding among physicians and their families has been accomplished through the efforts of the Tennessee Medical Association Auxiliary; and

WHEREAS, The Tennessee Medical Association has been a much better organization through the tireless efforts of the Auxiliary. Now, therefore be it

RESOLVED, That the Tennessee Medical Association express to the Tennessee Medical Association Auxiliary its profound gratitude for all of their accomplishments, their de-

votion to us, their outstanding leadership and assistance to the Tennessee Medical Association; and be it further

RESOLVED, That the Tennessee Medical Association solicit their continued support to continue to try to improve health care in Tennessee and our relationship with the public which we serve; and be it further

RESOLVED, That the Tennessee Medical Association endeavor to assist the Auxiliary to make their organization function as effectively as possible; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 2-84.*

ACTION: **ADOPTED**

RESOLUTION NO. 3-84

Penalties for Hunting While Under the Influence of Alcohol or Drugs

BY: PARKER ELROD, M.D.

BUFFALO RIVER VALLEY MEDICAL SOCIETY

WHEREAS, Any gun, but especially a deer rifle such as a 30-30 or any high powered rifle, is designed for killing and is a very lethal weapon; and

WHEREAS, An excess number of hunters, domestic animals and even spectators are killed each year; and

WHEREAS, The use of a gun requires good judgment and the use of all of one's faculties; and

WHEREAS, There is an excess number of hunters who hunt while under the influence of alcohol or drugs; and

WHEREAS, The state recognizes the use of alcohol and/or drugs while operating an automobile is dangerous enough to have penalties and jail sentences. Now, therefore be it

RESOLVED, That the House of Delegates instruct the TMA Legislative Committee to seek passage of a state law imposing penalties and sentences on hunters judged to be hunting while under the influence of alcohol or drugs; and be it further

RESOLVED, That determining if a hunter is under the influence be the same as that used for DUI offenders; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 3-84 as amended.*

ACTION: **ADOPTED AS AMENDED**

SUBSTITUTE RESOLUTION NO. 4-84

Voluntary Fee Freeze

BY: BERGEIN F. OVERHOLT, M.D., PRESIDENT

TENNESSEE SOCIETY OF INTERNAL MEDICINE

WHEREAS, The American Medical Association has requested the physicians throughout the country to freeze their fees voluntarily for all patients for one year; and

WHEREAS, Physicians also have been requested to continue to consider the financial circumstances of each patient, especially the unemployed, the uninsured, and those under Medicare, and accept reduced fees where warranted; and

WHEREAS, Tennessee physicians have traditionally been willing to do their share in providing cost-effective medical care and accept reduced fees for those with financial hardships; and

WHEREAS, Volunteering in Tennessee is considered a privilege. Now, therefore be it

RESOLVED, That the Tennessee Medical Association support the nationwide effort on voluntary fee freezing for one year; and be it further

RESOLVED, That Tennessee physicians be encouraged to continue to be cognizant of financial conditions and circumstances of each patient, especially the unemployed, the uninsured and those under Medicare, and accept reduced fees where appropriate; and be it further

RESOLVED, That this resolution be forwarded to the AMA House of Delegates, to the Tennessee congressional delegation and to all local medical societies in the state; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1985.

REFERENCE COMMITTEE A—*offered Substitute Resolution No. 4-84 in place of original Resolution No. 4-84 and recommended incorporating Resolution No. 5-84 with Substitute Resolution No. 4-84; recommended adoption of Substitute Resolution No. 4-84.*

ACTION: **ADOPTED AS AMENDED**

RESOLUTION NO. 5-84

Voluntary Fee Freeze

BY: HAMEL B. EASON, M.D., PRESIDENT

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

WHEREAS, The medical profession should take a leadership role to control rising health care costs, preferably through voluntary action; and

WHEREAS, The American Medical Association has assumed this role, as have other state and county medical societies throughout the country. Now, therefore be it

RESOLVED, That the Tennessee Medical Association call on all members to voluntarily freeze their fees for all patients for one year, effective immediately, and to continue to look closely at the financial circumstances of each of their patients, especially the unemployed, uninsured, and those under Medicare, and accept reduced fees where appropriate; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1985.

REFERENCE COMMITTEE A—*recommended incorporating Resolution No. 5-84 with Substitute Resolution No. 4-84.*

ACTION: **NOT ADOPTED (Was combined with Substitute Resolution No. 4-84, which was adopted as amended.)**

RESOLUTION NO. 6-84

Medicare Fee Freeze and Mandatory Assignment

BY: C. EUGENE JABBOUR, M.D., SECRETARY
MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

WHEREAS, The Rostenkowski Amendment in the U.S. House of Representatives would roll back physician fees under Medicare to the level set on June 30, 1983 and mandate acceptance of assignment for inpatient services; and

WHEREAS, The U.S. Senate Finance Committee's spending cut package would impose a two-year fee freeze on physicians who refuse to accept 100% of Medicare claims on assignment; and

WHEREAS, The American Medical Association has already called on physicians to voluntarily freeze their fees and consider the financial circumstances of patients under the Medicare program; and

WHEREAS, Mandatory assignment provisions would not result in budget savings as acceptance of assignment has no bearing on the amount Medicare pays; and

WHEREAS, The current system of free choice of assignment has not resulted in undue financial burdens for Medicare beneficiaries. Now, therefore be it

RESOLVED, That the Tennessee Medical Association strongly oppose any legislation that would impose a fee freeze and mandate acceptance of assignment under Medicare; and be it further

RESOLVED, That the American Medical Association take whatever action is necessary to defeat such legislation; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 6-84.*

ACTION: ADOPTED

RESOLUTION NO. 7-84

Dissemination of Economic Information

BY: C. EUGENE JABBOUR, M.D., SECRETARY
MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

WHEREAS, It is proper for the Tennessee Medical Association to disseminate information concerning economic matters to its membership; and

WHEREAS, It is in the interest of physicians and their patients to be aware of such information. Now, therefore be it

RESOLVED, That such information be published in the appropriate manner and place that physicians can request and receive the fee profile for Medicare Part B enrollees; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 7-84 as amended.*

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 8-84

Mandatory Second Surgical Opinions

BY: JOHN FARRINGER, JR., M.D., PRESIDENT
TN CHAPTER, AMERICAN COLLEGE OF SURGEONS
C. EUGENE JABBOUR, M.D., PRESIDENT-ELECT
TN CHAPTER, AMERICAN COLLEGE OF SURGEONS

WHEREAS, The American College of Surgeons' Board of Regents has issued a statement to the effect that the American College of Surgeons objects to the mandatory second opinion programs that reduce surgical benefit payments if the patient fails to seek a second opinion or proceeds with an elective operation in spite of a negative second opinion. Such a reduction of benefits is inappropriate for an insurance company. Instead of being a detached paymaster, the company, in essence, coerces the patient into choosing that therapy which presumably is less expensive for the company, regardless of the validity of either opinion; and

WHEREAS, The AMA has opposed mandatory second opinion programs and the TMA Board of Trustees has previously adopted the AMA position of opposition. Now, therefore be it

RESOLVED, That the House of Delegates of the Tennessee Medical Association officially go on record as being opposed to mandatory second opinions as required by commercial insurance carriers or the Blues or by federally funded or state funded programs; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 8-84.*

ACTION: ADOPTED

RESOLUTION NO. 9-84

Opposition to Expanding Use of Abbreviations

BY: JOHN L. FARRINGER, JR., M.D.

WHEREAS, The proliferation of simply letters instead of complete words has reached the stage where misunderstanding is not only possible, but highly likely; and

WHEREAS, Medicine is supposed to be a more or less precise science; and

WHEREAS, Traditionally, medical lectures and medical journals have been of a scientific nature; and

WHEREAS, Hospital charts and records are legal documents; and

WHEREAS, Each new generation of house officers and young physicians manufactures another long list of letters or abbreviations which are understood only by them and subject to misinterpretation by nurses and fellow physicians. Now, therefore be it

RESOLVED, That the Tennessee Medical Association be opposed to the inappropriate expanding use of abbreviations and that the Tennessee Medical Association form a commit-

tee to approve a list of appropriate abbreviations similar to that currently in use in university hospitals; and a glossary of approved abbreviations be published in the *Journal of the Tennessee Medical Association*; and be it further

RESOLVED, That a task force be formed to disseminate this glossary of abbreviations to the medical schools and training programs in the state; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 9-84 as amended.*

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 10-84

Physician Supervision of Nurse Practitioners

BY: HAYS MITCHELL, M.D.

TN CHAPTER, AMERICAN ACADEMY OF PEDIATRICS
TENNESSEE ACADEMY OF FAMILY PHYSICIANS

WHEREAS, The Tennessee Code 63-6-204 in defining the "practice of medicine" states that "nothing in this chapter shall be so construed as to prohibit service rendered by a physician's trained assistant, registered nurse, or licensed practice nurse, if such service is rendered under the supervision, control and responsibility of a licensed physician;" and

WHEREAS, Many of the private, state-funded and federally funded primary care clinics in Tennessee have medical management of patients performed by nurse practitioners; and

WHEREAS, Services provided by these clinics range from treatment of chronic diseases such as hypertension and diabetes to acute febrile illnesses of children; and

WHEREAS, The rules and regulations promulgated by the Board of Medical Examiners concerning a nurse practitioner/prescription writer require the "supervising physician shall make a personal review of historical, physical and therapeutic data of all patients and their condition *as often as medically indicated* but at least every seven days." Now, therefore be it

RESOLVED, That the Tennessee Medical Association recommend that in the acute care clinics (such as those treating febrile illnesses) "as often as medically indicated" should require daily visits by the supervising physician in those clinics where on-site supervision is not feasible; and be it further

RESOLVED, That a copy of this resolution be sent to the Commissioner of the Department of Health and Environment and to the Primary Care Advisory Board; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 10-84 as amended.*

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 11-84

Insurance Coverage

BY: HAYS MITCHELL, M.D.

TN CHAPTER, AMERICAN ACADEMY OF PEDIATRICS
TENNESSEE ACADEMY OF FAMILY PHYSICIANS
TENNESSEE SOCIETY OF INTERNAL MEDICINE

WHEREAS, In the past, insurance policies have directly or indirectly encouraged hospital inpatient and emergency room use; and

WHEREAS, It is incumbent upon our profession to seek methods of cost containment without jeopardizing the quality of medical care; and

WHEREAS, Outpatient care is more cost-effective than hospital care when deemed appropriate by the attending physician. Now, therefore be it

RESOLVED, That the Tennessee Medical Association encourage insurance companies to develop in all of their policies reimbursement procedures designed to: (1) cover surgical or medical procedures and attendant costs in a physician's office that are covered in the emergency room or inpatient setting at an equal or higher rate to encourage less costly office care, (2) be a comprehensive approach with co-payment, (3) encourage outpatient care by having lower deductibles and lower co-payments as compared with inpatient and emergency room coverage, (4) encourage preventive health programs such as well child checkups and immunizations, and (5) encourage ambulatory surgery in a hospital or physician's office; and be it further

RESOLVED, That the Tennessee Medical Association work closely with patients, patient groups, insurance groups, and industrial groups to publicize and endorse policies that contain these concepts; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 11-84 as amended.*

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 12-84

Positive Personal Lifestyles

BY: SARAH H. SELL, M.D.

NASHVILLE ACADEMY OF MEDICINE
TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT

WHEREAS, Good personal health behavior is the basis for improvement of the overall health status of the people of Tennessee; and

WHEREAS, Each person is responsible for his/her own health choices; and

WHEREAS, The best strategy for a state program is first to educate people to understand the consequences of their actions and second to make available resources and services which will permit effective use of the information; and

WHEREAS, "Fitness" and "safety" directly affect how people feel. Now, therefore be it

RESOLVED, That the TMA join the Tennessee Department of Health and Environment to promote positive personal lifestyles by emphasis on: (1) "fitness" which includes an overall state of wellness involving appropriate nutrition as well as adequate physical activity, (2) "safety" which covers general accident prevention and injury control with automobile safety as an area of special concern, and (3) "education" concerning the hazards involved in the use of tobacco, alcohol, and other dangerous drugs; and be it further

RESOLVED, That the TMA support the goal of a 15% reduction of the 1980 morbidity and mortality rates across all age groups by 1990; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 12-84 as amended.*

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 13-84

Living Will

BY: HOWARD L. SALTER, M.D.
NASHVILLE ACADEMY OF MEDICINE

WHEREAS, The principle of informed consent by a mentally competent adult with regard to his treatment in a terminal situation has been acceptable and is respected by both physicians and hospitals; and

WHEREAS, There is a growing population of the aged; and

WHEREAS, Many of the aged suffer from the so-called degenerative diseases; and

WHEREAS, The complications of these diseases not infrequently lead to a purely vegetative existence—"body without mind"; and

WHEREAS, Modern medical technology may both permit the development of, and prolong this state of life "indefinitely"; and

WHEREAS, The maintenance of a person in a vegetative existence in a nursing home may deplete the family's financial resources; and

WHEREAS, Statements of Pope Pius XII, the United Methodist Church, the United Church of Christ, the Central Conference of Rabbis, the American Friends Service Committee and the Presbytery of New York City have recognized the feasibility of today's technology in the prolongation of life and at the same time the patient's right to die with dignity, agree that under certain circumstances the attending physicians are not required to interfere with the natural course of disease and prolong a life without quality; and

WHEREAS, The Judicial Council of the AMA is in agreement that under circumstances spelled out, "all means of life support may be discontinued" (*AMA News*, Jan. 23, 1981); and

WHEREAS, The President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research recommends that state courts and legislatures should consider making provisions for advance directives, "which provide a means of preserving some self-determination for patients who may lose their decision-making capacity"; and

WHEREAS, "No practitioner has been successfully subjected to civil liability or criminal prosecution for having followed the provisions in a living will" (Report of the President's Commission, page 140); and

WHEREAS, Fifteen states have enacted "Natural Death Acts" and forty-two states, including Tennessee, have enacted the Uniform Durable Power of Attorney Act; and

WHEREAS, A living will gives the responsible physician great assistance in the management of his patients in their terminal illness or in the prolongation of a vegetative existence. Now, therefore be it

RESOLVED, That the Tennessee Medical Association go on record as recognizing that the principle of informed consent by a mentally competent patient has a logical extension to the decision of terminating treatment in patients with a terminal illness or who are in coma, the patient's "informed consent" having been recorded in a living will while he was mentally competent; and be it further

RESOLVED, That members of the Association in consultation with colleagues if deemed necessary, and with the complete agreement of responsible and competent members of the patient's family fulfill the sense of the living will; and be it further

RESOLVED, If a member of the Association prefers not to accept the provisions of the living will, he so inform the patient's family and transfer the patient to another physician of their choice; and be it further

RESOLVED, That the Association recommend to the hospitals of the state of Tennessee a review of their governing rules for their staff and delete from these any that might prohibit a member of its staff from carrying out the provisions of a living will after medical consultation, if necessary, and with the full agreement of responsible and competent members of the patient's family; and be it further

RESOLVED, That the foregoing resolution be construed in a manner consistent with all applicable law and that if any provision hereof be inconsistent with such law, the provision be deemed amended to the extent necessary to comply with such law; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE C—*recommended nonadoption of Resolution No. 13-84.*

ACTION: NOT ADOPTED

RESOLUTION NO. 14-84

Diagnosis Related Groups (DRGs)

BY: ARDEN J. BUTLER, JR., M.D., PRESIDENT
NORTHWEST TENNESSEE ACADEMY OF MEDICINE

WHEREAS, DRG legislation will not lower hospital costs over the long haul; and

WHEREAS, DRG legislation will make hospital medical care more scarce; and

WHEREAS, DRG legislation is totally unfair to hospitals by allowing no recourse in collecting the unpaid bill. Now, therefore be it

RESOLVED, That the TMA oppose the principle of DRG legislation and work to have it modified to correct the many inequities such as urban and rural categories, or to have it

repealed and to use its influence in Washington through contacts with the Tennessee congressional delegation and correspondence by all TMA members to their representatives; and be it further

RESOLVED, That this resolution be forwarded to the AMA Board of Trustees; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 14-84 as amended.*

ACTION: **ADOPTED AS AMENDED**

RESOLUTION NO. 15-84

Cost Control of Medical Services

BY: W. ROBERT GRONEWALD, M.D.
LAKEWAY MEDICAL SOCIETY

WHEREAS, The government, industry, labor, civic organizations, and the general public are expressing concerns about their medical care costs; and

WHEREAS, The complexity, variety, and amount of taxes are a significant "business" cost in our provision of medical care. Now, therefore be it

RESOLVED, That the TMA disseminate information regarding the inflationary impact of taxes on medical care costs; and be it further

RESOLVED, That the TMA oppose discriminatory taxes aimed toward the medical profession that tend to increase the cost of medical care; and be it further

RESOLVED, That this resolution be carried forward to the AMA House of Delegates; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 15-84 as amended.*

ACTION: **ADOPTED AS AMENDED**

RESOLUTION NO. 16-84

Natural Death Act and the Living Will

BY: MCCARTHY DEMERE, M.D.
MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

WHEREAS, The Tennessee Medical Association has been on record as favoring dignity of patients both in life and death; and

WHEREAS, The withholding of treatment in the final stages of life has been recognized as being a matter of medical judgment and consummated between the patient, the physician, the next of kin and the family; and

WHEREAS, It is a well-recognized medical and legal fact that every competent and lucid patient has a right to refuse any type of treatment; and

WHEREAS, The physicians of the Tennessee Medical Association have always attempted to consider and honor, whenever reasonable, requests not to continue life treatment;

and

WHEREAS, The states that have adopted Natural Death Act and Living Will legislation have met with great confusion and have actually interfered with the doctor-patient relationship. Now, therefore be it

RESOLVED, That the Tennessee Medical Association continue to be on record as being in favor of patients indicating their wishes but opposed to any type of Natural Death Act or Living Will legislation that would mandate the physician to discontinue life supports without regard to his medical opinion; and be it further

RESOLVED, That the Tennessee Medical Association oppose any legislation that would put laws, courts, and judges in a position of making life and death decisions; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 16-84.*

ACTION: **ADOPTED**

RESOLUTION NO. 17-84

Prescription Drug Usage

BY: SARAH H. SELL, M.D.

WHEREAS, There is a serious problem caused by large leaks of addictive drugs which are obtained by prescriptions from physicians and other health providers; and

WHEREAS, Governor Alexander has established a special task force to address this problem in Tennessee; and

WHEREAS, The Tennessee Task Force is urging the TMA to take a leadership role in efforts to correct this problem in our state; and

WHEREAS, The AMA is supporting states by making available their special resources. Now, therefore be it

RESOLVED, That the TMA recognize the urgency of eradicating the evil of abuse of prescription drugs; and be it further

RESOLVED, That the TMA vigorously support the Tennessee Task Force including the appointment of a representative from its membership to this task force; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 17-84 as amended.*

ACTION: **ADOPTED AS AMENDED**

RESOLUTION NO. 18-84

Malpractice Insurance

BY: WILLIAM R. JONES, M.D.
LINCOLN COUNTY MEDICAL SOCIETY

WHEREAS, A few years ago the physicians of Tennessee found themselves abandoned by most malpractice insurance writers and gouged by the one or two that remained; and

WHEREAS, The physicians of Tennessee, through the efforts of TMA, banded together to form an insurance company (State Volunteer Mutual Insurance Company) that could reasonably provide malpractice protection and support; and

WHEREAS, This same insurance industry which so readily abandoned us before is now attempting to undermine SVMIC by selling malpractice insurance at a loss in Tennessee; and

WHEREAS, In other states, such as Florida, the insurance industry has had some success at undermining physicians' organized insurance companies by selling at such losses. Now, therefore be it

RESOLVED, That the TMA make a concerted effort to educate all members of local societies in those matters related to malpractice insurance both past and present in Tennessee, and acquaint them with the purpose and tactics being used to undermine SVMIC; and be it further

RESOLVED, That this House of Delegates reaffirm its appreciation of the tremendous effort required to establish SVMIC, the outstanding manner in which all aspects of SVMIC service and protection have been carried out, and our desire that SVMIC receive the wholehearted backing of all component societies and physicians of Tennessee; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1991.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 18-84.*

ACTION: ADOPTED

RESOLUTION NO. 20-84

AMA Dues Freeze

BY: PETE S. SOTERES, M.D.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

WHEREAS, The AMA has requested each member physician to freeze fees; and

WHEREAS, A frequent reason physicians give for leaving the AMA is the amount of the dues; and

WHEREAS, We wish the AMA to demonstrate its support of each member in their endeavor. Now, therefore be it

RESOLVED, That the Tennessee delegation recommend to the AMA House of Delegates and the AMA Board of Trustees a freeze on AMA dues for the duration of the physician fee freeze; and be it further

RESOLVED, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1985.

REFERENCE COMMITTEE—*(Late Resolution) Was acted upon by House of Delegates as a committee of the whole.*

ACTION: ADOPTED

TENNESSEE'S OUTSTANDING PHYSICIAN OF THE YEAR

John H. Burkhart, M.D.

The Tennessee Medical Association's most coveted honor, the Outstanding Physician of the Year Award, was presented to John Henry Burkhart, M.D., Knoxville family physician. He was the only nominee considered by the 194-member TMA House of Delegates. He was nominated by the Knoxville Academy of Medicine.

Dr. Burkhart, a native of Knoxville, received his medical degree from the University of Tennessee College of Medicine in 1945. He did a one-year internship at Knoxville General Hospital, then served for two years with the U.S. Army Air Force, the last year with the Army of Occupation in Japan. He was discharged as a captain in the Medical Corps. He served a one-year residency in internal medicine at Knoxville General Hospital and has practiced medicine in Knoxville since 1949.

Dr. Burkhart was president of the Tennessee Medical Association in 1965. He also has served as its secretary and vice president, and chairman of the TMA Board of Trustees. From 1967 to 1978, he was a TMA delegate to the American Medical Association. He has served as president of the board of directors of the TMA Student Education Fund since its organization in 1963.

He has been a member of the American Academy of Family Practice since 1953. In 1964, he was elected General Practitioner of the Year by the Tennessee Academy of General Practice. In 1975, he was the recipient of a TMA Distinguished Service Award.

Dr. Burkhart was elected to the AMA Judicial Council in 1978 and reelected in 1983, serving as its chairman in 1981. He was appointed to the Tennessee Board of Medical Examiners in 1974, reappointed and elected chairman in 1978 and reappointed in 1982. He still serves as the chairman of that state board.

From 1976 to 1983, he was a member of the Committee on Municipal Health Services of the Robert Wood Johnson Foundation. From 1958 to 1965, he was a member of the Knoxville Board of Education, serving as its president.

Dr. and Mrs. Burkhart have three sons, all of whom are graduates of the University of Tennessee College of Medicine.

The Tennessee Medical Association was honored to present its 1984 Outstanding Physician of the Year Award to John Henry Burkhart, M.D.

COMMUNITY SERVICE AWARDS

Each year, the Tennessee Medical Association is privileged to present its Community Service Award to citizens who have made significant contributions to their community and state in the very broad field of health care. This year, TMA recognized the contributions of three distinguished Tennesseans.

Mr. Mason Granger, a native of New York City, is news director of WMC-TV, Channel 5, Memphis, and co-anchor of the station's evening newscast. He has made a significant contribution to cancer awareness and education in the mid-South area.

He is a member of the board of directors and chairman of the Public Information Committee of the American Cancer Society's Memphis-Shelby County unit. He has been instrumental in the development of "Cancer Answer Week," a two-hour, live program each fall on WMC-TV designed to educate the public on the detection and treatment of cancer illnesses. He is moderator of the program.

Mr. Granger received his bachelor's degree from the University of Virginia and his master's degree in journalism from Columbia University. He has been co-anchor of the evening newscast and a member of the Action News 5 team since October, 1975.

He serves on the board of directors of the Memphis Association for Retarded Citizens, Goodwill Boys' Club, Big Brothers-Big Sisters of Greater Memphis, Leadership Memphis, and the Memphis Zoological Society.

Mr. Granger is a most worthy recipient of the Community Service Award and the Tennessee Medical Association is proud to present him with this honor.

Mrs. Patricia Cole Thurston, a native of Brookings, South Dakota, is the wife of Timothy W. Thurston, M.D., Maryville pediatrician. She has shown a particular concern for abused persons, especially battered wives and children. This concern led to the establishment of Blount County's first and only shelter for abused persons—Haven House. She perceived the need for the shelter and arranged for Tennessee Governor Lamar Alexander to come to Blount County in support of Haven House, with thousands of Blount Countians joining the governor in a walkathon to raise funds and to publicize the plight of abused persons.

She received her B.S. degree in nursing at the University of Tennessee College of Nursing in Memphis and was a staff nurse for three years at the Veterans' Administration Hospital in Memphis. She was a public health nurse for two years with the Memphis-Shelby County Public Health Department.

Prior to moving to Maryville, the Thurstons resided in Morristown. There, Mrs. Thurston initiated a scoliosis screening program in the Morristown and Hamblen County schools. When she moved to Maryville, she developed the same program in Blount County.

The Tennessee Medical Association is very proud to honor a woman of such distinction with the Association's 1984 Community Service Award.

Mrs. Angeline Haynes Yarbrow, a native of Tiptonville, retired in October, 1982, as director of development for the Western Tennessee Region of the Easter Seal Society for Crippled Children and Adults. She is the wife of retired banker Mr. John T. Yarbrow.

Her cerebral palsied son was born in 1951 and lived to be 11 years old. Her daughter developed a speech and hearing problem but now is a speech and hearing teacher of children with special needs in Illinois. For six years, Mrs. Yarbrow traveled to Memphis once a week for therapies for both her children. She often provided transportation for other children. In 1953, she became a volunteer for the Easter Seal Society as the Lake County chairman and fund-raiser.

In 1968, she was employed by the Western Tennessee Chapter of the Easter Seal Society as field representative, later becoming director of development. She covered a 20-county area in western and northwestern Tennessee in developing centers for the handicapped.

She is current president of the Tennessee Mothers' Association of American Mothers, Inc., and is very active as a member of the administrative board of the First Methodist Church of Tiptonville.

Recently, Mrs. Yarbrow assumed the presidency of the Tennessee Federation of Women's Clubs, an organization with over 7,000 members. Her main project as president of that organization will be to aid the handicapped.

The contributions to her community and state over the years have been well established by Mrs. Yarbrow. It is a high honor for the Tennessee Medical Association to recognize her contributions with this year's Community Service Award.

DISTINGUISHED SERVICE AWARDS

The Distinguished Service Award is presented annually by the Board of Trustees of the Tennessee Medical Association to physician members who have made eminent contributions to the public welfare or to the advancement of medical science. At the 149th Annual Meeting of TMA on April 11-14, the chairman of the Board of Trustees announced that there were two recipients of this award in 1984.

Allen S. Edmonson, M.D., a native of Martin who has practiced orthopaedic surgery at Campbell Clinic, Inc., Memphis, since 1959, received his medical degree from the University of Tennessee College of Medicine in Memphis in 1953. He was certified by the American Board of Orthopaedic Surgery in 1962.

Dr. Edmonson served as president of the Memphis-Shelby County Medical Society in 1979. He was its treasurer in 1976 and a member of its House of Delegates in 1965-79. He has been a member of the board of directors of the Memphis-Shelby County Medical Foundation since 1980 and a member of the board of directors of Memphis Independent Practice Association since 1982.

In 1981, he served as president of the Tennessee Medical Association. He was vice speaker of the TMA House of Delegates in 1974-78 and speaker of the House in 1978-80. During the period of 1975-81, he served as chairman of the board of directors of State Volunteer Mutual Insurance Company (SVMIC).

Last year, he served as co-chairman of Health Care Coalition of Memphis, organized by the Memphis-Shelby County Medical Society in 1982 and cosponsored by the Memphis Area Chamber of Commerce as an effort to promote health care cost containment throughout the Memphis and mid-South area. The Coalition conducted a number of in-depth studies and activities to determine the effects of various factors on the overall cost of health care. This work culminated in the adoption of 14 recommendations to help contain health care costs without compromising quality of medical care. The leadership of Dr. Edmonson was one of the major factors behind the successful work of the Coalition.

Dr. Edmonson is a tireless worker for organized medicine and his contributions have been innumerable over the years. The Association is very pleased to confer this highly deserved honor on Dr. Edmonson.

Grant W. Liddle, M.D., a native of American Fork, Utah, received his medical degree in 1948 from the University of California.

He is the former professor and chairman of the Department of Medicine at Vanderbilt University School of Medicine in Nashville. He joined its faculty in 1956. He has earned international recognition for his pioneering research in clinical endocrinology.

Among his noteworthy accomplishments are developing tests for pituitary-adrenal gland function, identifying treatment for Cushing's syndrome, the discovery and delineation of ectopic ACTH syndrome and the discovery that ACTH also is produced by some cancers.

Before joining Vanderbilt, Dr. Liddle was an intern, resident and research fellow at the University of California School of Medicine and senior assistant surgeon in the Section on Clinical Endocrinology at the National Heart Institute. He has written over 200 articles for professional journals during his career.

He was president of the International Society of Endocrinology in 1976-80, president of the Nashville Society for Internal Medicine in 1965-66, president of the Southern Society for Clinical Investigation in 1965-66 and president of the Endocrine Society in 1973-74. In 1962, he was the recipient of the Endocrine Society's Upjohn Award and, in 1971, received its Distinguished Leadership Award in Endocrinology.

In 1973, he received the Henry Hallet Dale Medal of the British Society for Endocrinology. In 1979, he was the recipient of the Earl Sutherland Prize for Achievement in Research. He was named a fellow in the Royal College of Physicians in England two years ago.

Dr. Liddle's contributions to the medical profession have been significant and the Tennessee Medical Association is honored to present its 1984 Distinguished Service Award to him.

REPORTS OF OFFICERS

Report of the President

NAT E. HYDER, JR., M.D.

To be president of the Tennessee Medical Association during its 154th year has been a signal honor and a memorable experience. Since the reports from the chairman of the Board of Trustees and the executive director will be a thorough chronicle of the Association's activities during the past year, my report will not be as detailed.

Visiting component medical societies across the state, along with attending hospital staff meetings and Tennessee Hospital Association's functions, has been a most rewarding experience. These meetings have confirmed my longtime impression that we have had and continue to have many physician members who are very dedicated, willing and quite able to continue to work toward delivering quality health care to the people of this state and this country.

It is a heartwarming experience to meet and work with such high caliber individuals. Let us hope and pray that medicine will continue to provide this type of physician with the commitment needed to carry on the tradition of the Tennessee Medical Association.

The professional staff of the Tennessee Medical Association is dedicated to keeping the Association well organized and operational on local, state and national levels. We are most fortunate in having such competent and responsible individuals.

In your president-elect, Thomas Kelly Ballard, M.D., along with the Board of Trustees, we can rest assured that the objectives of the House of Delegates will be carried out in the coming year in the best interests of our patients and our profession.

REFERENCE COMMITTEE C—*reviewed the report of the president, recognized Dr. Hyder's many contributions to the Association and thanked him for his leadership during the past year, and recommended that the report be filed.*

Report of the Board of Trustees

CLARENCE R. SANDERS, M.D., *Chairman*

Management of the day-to-day affairs of the Tennessee Medical Association is vested by the Constitution and By-Laws in the Board of Trustees. Full authority rests with the Board between sessions of this body to oversee finance, property management, record keeping and all demands of an organization as required by state and federal law. Such re-

sponsibility, due to a number of factors, has been on the increase annually for several years.

In order to carry out its delegated responsibilities, the Board conducted regular quarterly meetings during which 128 separate items of business related to the operation of the Association were considered and acted upon. As is customary, highlights of each quarterly meeting are reported in the *Journal of the Tennessee Medical Association* in order for all members to be aware of Board actions.

The reports you will hear today from the other officers of TMA will detail many of the activities with which the Association has been involved during the past 12 months.

In an effort to maintain the necessary close liaison with component medical societies and individual physicians, members of the Board, along with the president and other officers, have visited scheduled county society meetings across the state to review Association policy with individual members and the county society leadership. The Board feels very strongly that continued liaison in this manner is necessary in order to feel and maintain the pulse of organized medicine. Several Board members have also attended national meetings sponsored by the AMA to better educate themselves with the issues so vital to American medicine and to bring back to the Board the knowledge and expertise so necessary in today's changing times. The TMA members have been well represented by their elected officers and trustees.

Also, in an effort to provide medicine's leadership across the state with a better insight into the ever-changing developments in Congress and the Tennessee General Assembly, the Board authorized a Leadership Conference in February that was, in my opinion, one of the most informative programs ever assembled by TMA. Although attendance was good, ten times the number would have benefited from hearing the nationally recognized speakers.

The following is a brief outline of the major items of business acted upon by the Board during the past 12 months:

Second Quarter Meeting—April 13, 1983

The Board:

- Made the following TMA Committee appointments: Dr. Bruce Walker, Committee on Maternal and Child Care; Dr. Thomas Traylor, Maternal Mortality Subcommittee; Dr. Thornton E. Bryan, Rural Health Committee; Dr. E. William Rosenberg, Committee on Continuing Medical Education; and Dr. Ben D. Hall, Impaired Physician Committee.
- Appointed Drs. Howard W. Thomas, William C. Anderson, George W. Holcomb, Jr., and Charles B. Thorne to serve on the Impaired Physician Loan Fund Board.
- Approved the nominations of Drs. Gary Jackson, Daniel R. Hightower, and Victor Schlesinger for appointment to the State Advisory Council to the Board of Examiners for Speech Pathology and Audiology.
- Declined a proposal from Xerox Corporation offering certain products at a reduced price.
- Approved cosponsorship with the Tennessee Hospital Association of three DRG workshops for physicians in Nashville, Knoxville and Memphis.
- Appointed Dr. Nat E. Hyder, Jr., to serve as TMA's representative with the Tennessee Business-Labor-Health Care Coalition.
- Approved the 1982 audit as conducted by the firm of Ezra Jones and Associates.
- Voted to change TMA policy regarding the investment of

TMA funds, limiting each investment to the government insured amount.

- Directed a By-Law change be drafted for submission to the House of Delegates, broadening the investment capability.
- Accepted for information the first quarter operating report.
- Approved the nominations of Drs. Ronald E. Rosenthal, James C. Prose or Louis G. Britt, for appointment to the task force studying levels of care in hospital trauma centers.
- Recognized retiring Board members Drs. Allen S. Edmonson, James R. Royal, James T. Gaylon, John L. Sawyers, and George H. Wood, for their contributions.

Second Quarter Meeting—April, 16, 1983

The Board:

- Elected the following persons for 1983-84: Dr. Clarence R. Sanders, chairman; Dr. H. Trent Vandergriff, vice-chairman; Dr. C. Eugene Jabbour, secretary-treasurer; and Mr. L. Hadley Williams, assistant secretary-treasurer.
- Elected an Executive Committee and seven committees of the Board.
- Named Board members to serve as division coordinators and as liaison to each medical specialty organization.
- Adopted policy that Board members not be appointed to serve on the Nominating Committee.
- Referred to the Committee on Constitution and By-Laws, a By-Law addition regarding future elections of AMA delegates and alternates.
- Approved a letter of solicitation to newly elected Board members regarding sustaining membership in IMPACT.
- Appointed Dr. James R. Royal, M.D. to serve on the IMPACT Board.
- Determined the composition of the Ad Hoc Selection Committee for the Chief Medical Officer and delegated the authority for selection to the Executive Committee.

Third Quarter Meeting—July 10, 1983

The Board:

- Received reports from the Ad Hoc Selection Committee for the Chief Medical Officer, the Impaired Physician Committee, the Committee on Governmental Medical Affairs, the Committee on Rural Health, and State Volunteer Mutual Insurance Company.
- Approved a request for \$1,500 for the TMA Auxiliary Sharing Card Program.
- Accepted the resignation of Dr. Clarence C. Woodcock, Jr. as alternate AMA delegate and named Dr. Robert W. Ikard to serve the unexpired term.
- Approved a contract with GTE for distributorship of the AMA/GTE Medical Information Network.
- Directed an appropriate response be made to the Department of Public Health regarding the Medicaid Peer Review process.
- Nominated Dr. Virgil Crowder, Jr. to serve on the Middle Tennessee Health Systems Agency.
- Nominated Drs. Arthur S. Harris, Ronald C. Cate, and Edgar R. Franklin to serve on the state Board for Licensing Hearing Aid Dispensers.
- Appointed Dr. Winston P. Caine to serve on the Committee on Scientific Affairs.
- Nominated Drs. James Williams and John H. Dougherty,

Jr. to serve on the AMA Diagnostic and Therapeutic Technology Assessment Program (DATTA).

- Referred a letter from AMA in reference to a proposed policy change of reimbursement by third party payors to the Governmental Medical Services Committee.
- Received a report from Dr. Hamel B. Eason regarding the June meeting of the AMA House of Delegates.
- Accepted recommendations from the Travel Committee for TMA sponsored trips in 1984.
- Approved the second quarter financial statement.

Fourth Quarter Meeting—October 9, 1983

The Board:

- Confirmed action by the Executive Committee regarding a membership survey, the GTE contract and scheduling of a Leadership Conference in early 1984.
- Approved the employment of a part-time medical director for the Impaired Physician Program, the employment contract and proposed budget.
- Nominated Drs. Alan L. Graber and John D. Pigott to serve on the AMA Diagnostic and Therapeutic Technology Assessment Program (DATTA).
- Directed the Interprofessional Liaison Committee conduct discussions with osteopathic physicians regarding possible membership in county and state medical societies.
- Directed a letter be written to the AMA Council on Medical Services regarding indemnity versus UCR reimbursement by third party payors.
- Declined to adopt a recommendation from the Committee on Governmental Medical Services regarding mandatory second opinions of five elective surgical procedures.
- Received reports from the Impaired Physician Committee, the Committee on Scientific Affairs, State Volunteer Mutual Insurance Company, and IMPACT.
- Nominated Drs. Hays Mitchell, Howard W. Thomas, and William J. Pedigo, Jr. for appointment to the Medicaid Medical Care Advisory Committee.
- Nominated Drs. Peter G. Carnesale, Evelyn B. Ogle, and John Saffold for appointment to the state Board for Licensing Health Care Facilities.
- Nominated Drs. James V. Ferguson, Jr., Carl T. Duer, and Billy J. Allen for appointment to the State Medicaid Formulary Advisory Committee to fill an unexpired term.
- Nominated Drs. Charles W. White, George S. Lovejoy, and Robert E. Clendenin, Jr. for appointment to the State Medicaid Formulary Advisory Committee.
- Nominated Drs. Mark P. Fecher, Warren F. McPherson, and William O. Miller for appointment to serve on the JUA Stabilization Reserve Fund.
- Received a report regarding implementation of the findings of the TMA Program in Prescribing Improvement and approved a request for physicians to serve on a special study group developing detailed protocols for the staff of the Tennessee Department of Health and Environment.
- Appointed Dr. Nat E. Hyder, Jr. to serve a one-year term as a Director on the IMPACT Board, representing the First District.
- Reappointed current directors in the Second through Ninth Districts to serve one-year terms on the IMPACT Board.
- Adopted AMA criteria regarding dues exemptions.
- Voted to approve a request from the Tennessee Nurses Association not to oppose legislation removing physicians from the state Board of Nursing.
- Nominated Dr. John W. Greene to serve on a special com-

mittee addressing the problems of adolescent pregnancy, abortion and adoption in Tennessee.

- Endorsed support of Senate Joint Resolution 54, establishing January each year as National Eye-Health Care Month.
- Received a report from the Ad Hoc Selection Committee for the Chief Medical Officer.
- Approved the third quarter financial statement.
- Approved a preliminary budget of \$1,046,775 for the 1984 fiscal year.

First Quarter Meeting—January 15-16, 1983

The Board:

- Approved a request by the Impaired Physician Committee to oppose the Medicare DRG assignment of 8.1 days for the treatment of alcoholism and directed a resolution be prepared for submission to the House of Delegates.
- Approved recommendations from the Committee on Medicine and Religion regarding expenses of the speaker for the annual prayer breakfast.
- Received a report from the Committee on Continuing Medical Education.
- Voted to oppose any legislative tax reform measures not broadly based on population.
- Voted to support legislation raising the legal drinking age to 21.
- Appointed Drs. George A. Zirkle, Jr., Jack Butterworth, Jr., and John E. Strickland, Jr. as the East Tennessee Nominating Committee.
- Appointed Drs. James W. Hays, Charles E. Jordan, III, and Lloyd T. Brown as the Middle Tennessee Nominating Committee.
- Appointed Drs. Phillip A. Pedigo, Oscar M. McCallum and James H. Ragsdale as the West Tennessee Nominating Committee.
- Appointed members to all standing and special committees and directed that letters be written to physicians completing their services on the various committees, expressing appreciation for their service. Also directed letters be sent to all physicians who had expressed a desire to serve but were not appointed, expressing appreciation for their interest and advising their names would be retained on file for future reference.
- Named Drs. Allen S. Edmonson and Grant W. Liddle to receive the Board's Distinguished Service Award.
- Appointed Drs. Robert L. Chalfant and Allen S. Boyd, Jr. to the TMA-Student Education Fund Board, and Drs. C. Eugene Jabbour and John B. Thomison to the Board of the Tennessee Medical Foundation.
- Received a report from State Volunteer Mutual Insurance Company and appointed Drs. William F. Buchner, Luther A. Beazley, Jr., and Hugh Francis, Jr. to serve on the SVMIC Loss Prevention Committee.
- Directed the Executive Committee and staff to draft a By-Laws amendment providing implementation of Resolution 1-77.
- Directed TMA staff to review and revise Resolution 10-77 for consideration at the April Board Meeting.
- Named Mason Granger, Patricia Cole Thurston and Angeline Yarbrow as recipients of the TMA Community Service Award.
- Received a report from Drs. Allen S. Edmonson and Nat E. Hyder, Jr. regarding activities of the AMA Health Policy Agenda Group.
- Accepted recommendations from the Committee on Group

Insurance regarding sponsorship of a new major medical insurance program beginning March 1, 1984.

- Approved cosponsorship of a statewide conference on school health education with the American Lung Association.
- Approved a request from the Tennessee Department of Health and Environment to cosponsor the 1984 Physician Recruitment Exchange.
- Nominated Dr. E. William Rosenberg to serve on the Committee for Review and Recognition (CRR) of the Accreditation Council for Continuing Medical Education.
- Directed a letter be written to the Medical Director of Prudential Insurance Company and the Commissioner of Insurance for the State of Tennessee stating TMA's opposition to mandatory second opinion programs.
- Referred letters of complaint regarding mandatory second opinions and unethical patient solicitation practices of some home health care agencies to the Governmental Medical Services Committee.
- Received a report from Dr. Hamel B. Eason of the action of the AMA House of Delegates at the December Interim Meeting.
- Appointed Mr. Charles L. Cornelius, Jr., TMA Legal Counsel for 1984.
- Approved the 1983 financial statement and operating report, and the 1984 budget.
- Nominated Drs. L. G. Britt, Harry Lee Greene, or Phillip M. Ricks to serve on a Medicaid Medical Advisory Panel for liver transplants.
- Received a report from Mrs. Dottie Buchner of the activities of the TMA Auxiliary.

Having had the privilege of serving as chairman of the TMA Board of Trustees has been a highlight of my participation and activities within TMA. I am proud to have served with such a group of dedicated individuals who unselfishly give of their time and talents in an effort to improve TMA's ability to respond to the ever-growing demands facing medicine today and tomorrow.

REFERENCE COMMITTEE C—*reviewed the report of the Board of Trustees, thanked Dr. Sanders and the Board for managing the business of the Association during the past year with skill, and recommended that the report be filed.*

Report of the Secretary-Treasurer

C. EUGENE JABBOUR, M.D.

The annual audit for the fiscal and calendar year ending Dec. 31, 1983 has been completed and is available for review. The customary examination of Association records was made by Jones, Ramsey & Associates, Certified Public Accountants, whose report contains a summary of accounting policies and pertinent notes supporting schedules. As directed by the House of Delegates last year, all of our investment accounts are now fully insured.

The attached financial reports show the revenue and expenditures of the Association during 1983 and the assets, li-

abilities, and fund balances at the end of the year. The operating fund balance increased about \$45,000. Based upon projected 1984 expenditures, the operating fund is at the traditionally conservative 18-month level. However, it is expected that the fund will begin to decrease in 1984. The budget for fiscal year 1984 exceeds \$1 million for the first time in our history. With the same prudent care that is being exercised by the officers and staff of the TMA, our financial status should remain sound.

I wish to personally thank the Board of Trustees for allowing me to serve as your secretary-treasurer, and to thank the entire staff for their excellent help.

TENNESSEE MEDICAL ASSOCIATION OPERATING FUND STATEMENT OF REVENUES, EXPENDITURES AND FUND BALANCE

	Year Ended December 31	
	1983	1982
REVENUES		
Dues TMA (net of		
\$57,432.00 to Journal)	\$ 588,547.50	\$ 531,941.00
Annual Meeting—Exhibits	34,218.77	17,705.00
Annual Meeting—Tickets	8,019.00	5,140.00
Annual Meeting—		
Opry Tickets	3,128.00	
Investment Income	153,689.48	207,348.51
AMA Fees for		
Dues Collection	7,363.59	2,818.44
History Orders	177.00	485.00
	<u>\$ 795,143.34</u>	<u>\$ 765,437.95</u>
EXPENDITURES		
Administrative	\$ 402,066.90	\$ 379,767.69
Administrative Support		
& Services	21,616.51	17,117.21
Travel—Staff	27,979.09	26,391.14
Officers	29,458.58	21,619.68
AMA Delegates	22,344.06	28,704.38
Committee Expense	27,562.50	21,110.18
Legislative Expense	29,380.02	20,936.63
Other Organizations	55,455.00	9,449.00
Annual Meeting	37,310.22	28,500.87
Taxes	25,619.61	24,300.73
Headquarters Building	19,328.57	17,559.51
Capital Expenditures	10,124.05	17,100.53
Contingencies	6,282.60	14,403.75
	<u>\$ 714,527.71</u>	<u>\$ 626,961.30</u>
Excess Revenues Over		
Expenditures	80,615.63	138,476.65
Excess Journal Costs	<u>(35,272.81)</u>	<u>(30,957.92)</u>
Net Income	45,342.82	107,518.73
FUND BALANCE		
Beginning	<u>1,520,106.80</u>	<u>1,412,588.07</u>
Ending	<u>\$1,565,449.62</u>	<u>\$1,520,106.80</u>

TMA FUND BALANCE SHEET

	Year ended December 31	
	1983	1982
OPERATING FUND		
ASSETS		
Cash	\$ 120,442.19	\$ 189,217.23
Investments	1,647,625.00	1,550,000.00
Accrued Interest Receivable	38,472.46	28,446.95
Interfund Notes	168,900.00	139,200.00
Other Receivables	2,444.00	
	<u>\$1,977,883.65</u>	<u>\$1,906,864.18</u>
LIABILITIES		
Accounts Payable	\$ 7,778.97	\$
Accrued Payroll Taxes		(33.64)
Salary Escrow	14,746.06	15,785.52
	<u>22,525.03</u>	<u>15,751.88</u>
DEFERRED CREDITS		
Dues Collection Escrow	389,909.00	371,005.50
FUND BALANCE	<u>1,565,449.62</u>	<u>1,520,106.80</u>
	<u>\$1,977,883.65</u>	<u>\$1,906,864.18</u>
PROPERTY FUND		
ASSETS (at cost)		
Land	\$ 64,803.09	\$ 64,803.09
Building	199,743.72	199,743.72
Equipment	113,607.77	108,602.88
Autos	17,743.81	17,412.03
	<u>395,898.39</u>	<u>390,561.72</u>
Less Accumulated		
Depreciation	120,235.84	103,949.43
FUND BALANCE	<u>\$ 275,662.55</u>	<u>\$ 286,612.29</u>

TMA JOURNAL INCOME AND EXPENSE Year Ended December 31, 1983

	Total	Readership	Advertising
INCOME			
Allocation of Dues	\$ 57,432.00	\$57,432.00	\$
Advertising	49,797.99		49,797.99
Subscriptions	1,795.70	1,795.70	
	<u>\$109,025.69</u>	<u>\$59,227.70</u>	<u>\$ 49,797.99</u>
EXPENSES			
Printing and			
Distribution	\$ 97,026.51	\$60,267.38	\$ 36,759.13
Editor and Board	3,304.75	3,304.75	
Clerical Assistance	600.00	600.00	
Clipping Service	1,189.00	1,189.00	
Salaries	17,849.92	8,924.96	8,924.96
Employee Insurance	938.50	469.25	469.25
Taxes	1,192.58	596.29	596.29
Overhead	22,197.24	14,798.16	7,399.08
	<u>\$144,298.50</u>	<u>\$90,149.79</u>	<u>\$54,148.71</u>
EXCESS			
EXPENSES	<u>(\$ 35,272.81)</u>	<u>(\$30,922.09)</u>	<u>(\$ 4,350.72)</u>

REFERENCE COMMITTEE C—reviewed the report of the secretary-treasurer, commended Dr. Jabbour for his leadership and recognized the complexity of his duties, and recommended that the report be filed.

Report of the Judicial Council

JAMES T. CRAIG, JR., M.D., *Chairman*

The Judicial Council has not met formally this past year. Several matters have come to the attention of the district councilors and they have been resolved locally thus eliminating any appeals to the full Judicial Council. Local medical societies are to be commended for their review and adjudication of these situations which can be time-consuming and sensitive.

The Council has received excellent cooperation from the membership. New questions continue to arise as to legal and/or ethical situations involving confidentiality. The Council has asked for a study report from the TMA legal staff and counsel on confidentiality. The Council is of the opinion that more clearly defined guidelines on confidentiality could be helpful to the membership as physicians relate to patients, colleagues, third party payors, and medical institutions.

The Council would like to express some concern as to the inactivity and lack of responsiveness on the part of some local medical societies. There are some societies in this state that are very small and consequently tend to be inactive in the state organization. Over the next year the Council will involve itself through its district councilors in trying to stimulate these local societies toward greater participation in the Association's activities.

The Council wishes to express its appreciation and gratitude to all of those who have been called upon this year and given of their time and wisdom freely.

REFERENCE COMMITTEE C—*reviewed the report of the Judicial Council, expressed its appreciation to the members of the Council, and recommended that the report be filed.*

Report of the Executive Director

MR. L. HADLEY WILLIAMS

The ultimate survival of any individual membership association rests upon the organization's ability to adequately serve its members. The Tennessee Medical Association is no different. All the efforts of the headquarters staff are expended for the purpose of serving the membership. With the ever-increasing challenges that confront medicine on a daily basis, I feel we are adequately accomplishing the goal of service.

Membership in the Association is increasing on a steady basis. Later in this report, a more detailed analysis of membership numbers will be made. Responding to the needs of the increasing numbers of new members in today's medical and social environment requires a continuing analysis of all services provided by TMA.

Finances

For the first time in TMA history, the annual budget is projected to exceed \$1 million in 1984. As pointed out in my report to the House at this time last year, a close look at the Association's current and future financial needs will be required. The projected budget this year, if realized, will result in a deficit of more than \$50,000. This will occur despite the \$30 increase in annual dues authorized by the House last year.

The two programs for which the total amount of the dues increase was allocated—Student Education Fund and Impaired Physician Program—will utilize \$186,000 or 23.5% of the total amount anticipated to be collected from dues paying members. These two expenditures also represent 17.5% of the total budget for 1984. We have been able to support a budget that has increased annually on the same amount of non ear-marked dues (\$140) for the past eight years. I do not anticipate being able to maintain such a record and the 1984 projected deficit attests to this inability. The luxury of having one of the lowest dues structures of any state must soon be reconsidered.

Membership

As previously mentioned, a steady annual growth in membership continues. The following is a summary of membership figures for the past year as well as for several previous years for comparison purposes:

TMA MEMBERSHIP REPORT
As of December 31, 1983

	1983	1982	1981	1980	1979
Dues Paying Active Members	4,714	4,616	4,519	4,419	4,306
Dues Paying Resident Members	79	87	73	65	80
Dues Exempt Members	761	611	490	427	387
Veteran Status . . .388					
Military, Disabled and Retired . . .183					
Students 190					
TOTAL	5,554	5,314	5,082	4,911	4,773
Deaths	43	39	41	36	32

AMA Members from Tennessee Medical Association:

Dues Paying	3,621
Dues Exempt	556
Direct Members	1,435
TOTAL AMA MEMBERS	5,612

(76% of TMA members are also AMA members)

Staff

I reported last year that staff had increased by two persons in order to provide administrative services on a cost basis to State Volunteer Mutual Insurance Company for the purpose of conducting loss prevention seminars across the state. This arrangement was terminated by the insurance company at the end of 1983 in favor of in-house support services.

The executive staff remains intact. Mr. Don Alexander is assistant executive director and Mr. Jim D. Ingram is director of Continuing Medical Education. Mr. Jack Fosbinder is staff attorney and along with Mr. Ron Gant serves as liaison with both the Tennessee General Assembly and with members of Congress. Mr. Bill Wallace serves as secretary for the Student Education Fund and for staffing many other important committees, while Mr. Thom Wilkerson maintains liaison with the Auxiliary, county medical societies and with members of the news media across the state. Miss Linda Bass is executive secretary for five medical specialty organizations whose activities are directed and records maintained in the TMA headquarters office. TMA is, in my opinion, extremely fortunate to have obtained and maintained the staff expertise required to represent the membership and no other state could have a

more dedicated group working on behalf of physicians. I am deeply appreciative of the individual efforts of each staff member and for the continued devotion to duty in carrying out their responsibilities.

The Future

Although significant differences do exist in the manner in which medicine is practiced in various sections of the country and in other states, many socioeconomic factors are relative regarding the effect they potentially have on the practice of medicine. Our neighboring state of Kentucky appointed a committee to investigate the changing trends in medicine and the report was presented to the Kentucky Medical Association's House of Delegates last fall. I think the following trends enumerated by that Committee indicate major changes that are beginning to take place in addition to the technological advances that have been made in medical care delivery in the last decade.

- Non-physicians are taking a greater role in determining how medicine will be practiced, how it will be paid for, and how much will be paid for medical care.
- Business coalitions are making concerted efforts to lower corporate costs through negotiations with hospitals and physician groups, and by seeking positions on hospital boards. Private business is contracting for review of their health care costs.
- Legislation passed in California has legalized the corporate practice of medicine.
- The public has indicated a desire to limit what funds it will make available to government, which translates into less money for government employee benefit plans; limits on Medicare/Medicaid and other government funded programs; and the business community is no longer willing and/or able to make up the deficit.
- Interest in self-insurance programs has increased significantly by companies both individually and collectively.
- The public is demanding more cost accountability from providers while the Federal Trade Commission and the court system have established policies that, for all practical purposes, end fee review.
- Congress has made changes in hospital-based physician reimbursement under Medicare, implemented diagnosis-related groups for Medicare hospital reimbursement, and is studying the feasibility of applying them to physician reimbursement.
- Non-physician providers are making inroads based on cost considerations. They are selling the idea that they can do a lot of things cheaper than physicians and are claiming that there is no lessening in the quality of care.
- There has been an increase in the number of physicians participating in group practices.
- Most physicians feel there are more than enough practitioners in their communities, but the public does not feel there is an overabundance of doctors.
- Organized medicine has not been effective in dealing with nonmember aberrant physicians for reasons largely beyond its control.
- The increase in the number of physicians has resulted in greater competition for patients and greater competition for exclusive in-hospital contracts. It has also resulted in the establishment of alternate delivery systems such as freestanding emergency clinics; preferred provider organizations; ambulatory care networks and physicians' alliances; and hospital-owned clinics for minor injuries and medical problems. There is a growing number of salaried

physicians with different values and expectations than self-employed physicians.

- Females now comprise more than one-fourth of the nation's medical school classes. Thus, a significant number of the future membership in organized medicine will be female.
- The population is getting older, but the overall American birth rate has leveled off. The elderly use more care across the board, and thus more funds, while at the same time there will be fewer people in the work force paying taxes to fund governmental medical programs. By the year 2015 the ratio of workers to retire will be 2:1.
- Ethical questions will have to be addressed concerning the prolonging and quality of life versus dollars spent.
- The economy is changing from industrial-based to service-based.
- Hospitals may compete with physicians through closed medical staffs and contracts with employers, unions, and government organizations.
- Hospitals may compete with physicians by employing physician extenders, e.g., CRNAs.

These are but a few of the complex problems medicine must face presently in the near future. Change is not always good, only inevitable. The challenges are great. The Tennessee Medical Association must meet these and other challenges that are sure to evolve if the Association is to continue representing members from all segments of the practice of medicine. One thing that is quite clear above all, the profession needs to stand together today more than ever. The county medical societies, TMA and the American Medical Association will remain effective as long as we continue to maintain a unity of purpose and continue representing a high percentage of physicians in our state. Survival of the private practice of medicine depends upon the collective influence we now enjoy within the federation of organized medicine.

REFERENCE COMMITTEE C—reviewed the report of the executive director, thanked Mr. Williams for an outstanding job of presenting both the accomplishments and problems of the leadership of the Association during the past year, and recommended that the report be filed.

Committee Reports

The following standing and special committees made annual reports to the House of Delegates:

- Committee on Scientific Affairs
- Committee on Legislation
- Committee on Governmental Medical Services
- Committee on TMA Group Insurance
- Committee on Hospitals
- Committee on Peer Review
- Committee on Communications and Public Service
- Interprofessional Liaison Committee
- Committee on Continuing Medical Education
- Mediation Committee
- Committee on Rural Health
- Committee on Emergency Medical Services
- Advisory Committee to TMA Auxiliary
- Committee on Medicine and Religion
- Impaired Physician Committee
- Committee on Health Planning
- Primary Health Care Clinics Committee
- Committee on Long Term Health Care

1984 TMA Annual Meeting—House of Delegates Composition

First Session: April 11—Second Session: April 14

EX-OFFICIO MEMBERS OFFICERS

		First Session	Second Session
President	Nat E. Hyder, Jr.	Present	Present
President-Elect	Thomas K. Ballard	Present	Present
Vice President	Harold L. Neuwenschwander	Present	Present
Vice President	Lloyd T. Brown	Present	Present
Vice President	Robert E. Clendenin, Jr.	Present	Present
Speaker	Charles E. Allen	Present	Present
Vice Speaker	Malcolm R. Lewis	Present	Present

BOARD OF TRUSTEES

Clarence R. Sanders			Present
Charles E. Allen		Present	Present
Thomas K. Ballard		Present	Present
Luther A. Beazley, Jr.		Present	Present
William F. Buchner		Present	Present
Hugh Francis, Jr.		Present	Present
George W. Holcomb, Jr.		Present	Present
Nat E. Hyder, Jr.		Present	Present
C. Eugene Jabbour		Present	Present
Malcolm R. Lewis		Present	Present
John R. Nelson, Jr.		Present	Present
Thurman L. Pedigo		Present	Present
H. Trent Vandergriff		Present	Present
Charles W. White		Present	Present

COUNCILORS

1st District	Jack Bittenworth, Jr.	Present	
2nd District	John E. Kesterson	Present	Present
3rd District	Paul E. Hawkins		
4th District	Will G. Quarles, Jr.	Present	Present
5th District	William M. Young		Present
6th District	Ray W. Hester		Present
7th District	Virgil H. Crowder, Jr.	Present	
8th District	James T. Craig, Jr.	Present	Present
9th District	Hobart H. Beale	Present	Present
10th District	Phillip H. Dirmeyer	Present	Present

AMA DELEGATES

Thomas K. Ballard	Present	Present
John B. Thomison	Present	Present

MEMBER OF AMA JUDICIAL COUNCIL

John H. Burkhardt	Present	Present
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PAST PRESIDENT OF THE AMA

Tom E. Nesbitt		
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PAST PRESIDENTS

John H. Burkhardt	Present	Present
George B. Hubbard		
John H. Saffold	Present	
E. Kent Carter	Present	Present
J. Kelley Avery	Present	Present
David H. Turner	Present	
James W. Hays	Present	Present
George A. Zirkle, Jr.	Present	Present
Allen S. Edmonson	Present	Present
George W. Holcomb, Jr.	Present	Present

DELEGATES

EAST TENNESSEE GRAND DIVISION

County Society		Present	Present
BLOUNT	Marvin D. Peterson	Present	Present
	John J. Ingram	Present	Present
BRADLEY	Hays Mitchell	Present	Present
	E. Harris Pierce	Present	Present
CAMPBELL	James C. Farris		
CARTER	Tedford Taylor	Present	Present
CHATTANOOGA-HAMILTON	Pete S. Soteres	Present	Present
	William E. Rowe	Present	Present
	Thomas W. Currey	Present	Present
	Billy J. Allen	Present	Present
	Coleman L. Arnold	Present	Present
	David R. Barnes	Present	Present
	R. Phillip Burns	Present	Present
	C. Robert Clark	Present	Present
	Robert C. Coddington	Present	Present
	Robert W. Myers	Present	Present
	J. Edwin Strickland	Present	Present
CUMBERLAND	John Dougherty	Present	
GREENE	Dee L. Metcalf	Present	Present
KNOXVILLE ACADEMY	James J. Acker	Present	Present
	James C. Britt	Present	Present
	John T. Bushore	Present	Present
	Robert H. Collier, Jr.	Present	Present
	David G. Gerkin	Present	Present
	Ted F. Hoase, Jr.	Present	Present
	Fred A. Killeffer	Present	Present
	Bergain F. Overholt	Present	Present
	Robert N. Montgomery	Present	Present
	William J. Schneider	Present	Present
	William R. Sullivan	Present	Present
	Richard L. Whitaker	Present	Present
	George H. Wood	Present	Present
LAKEWAY	W. R. Granewald	Present	Present
	William J. Gutch	Present	
	J. Raymond Tindall		Present
McMINN	William Balin		Present
MONROE	F. Houston Lowry	Present	Present

County Society

		First Session	Second Session
ROANE-ANDERSON	Charles Gurney	Present	Present
	Tim Gowder	Present	Present
	William Bennett	Present	Present
SCOTT	H. M. Leeds		
SEVIER	Vincent B. Talley	Present	Present
SULLIVAN-JOHNSON	Hal S. Stubbs	Present	Present
	Donald W. Bales	Present	Present
	Richard D. Baker	Present	Present
	Fred Knickerbocker	Present	Present
	Billy Golden	Present	Present
	J. L. Jayne, Jr.		
	D. K. Garriatt	Present	
WASHINGTON-UNICOI	Duane C. Budd	Present	Present
	Burgeon E. Dossert	Present	Present
	Gilbert A. Rannick	Present	Present
	Clarence E. Goulding	Present	Present
MIDDLE TENNESSEE			
BEDFORD	John Derryberry	Present	Present
BENTON-HUMPHREYS	Subhi Ali	Present	
BUFFALO RIVER VALLEY	Parker D. Elrod	Present	Present
COFFEE	Robert Ridley	Present	
DEKALB	Melvin Blevins		
FRANKLIN	M. David Stockton	Present	Present
LAWRENCE	Alfred E. Turman		
LINCOLN	William R. Jones	Present	Present
MARSHALL	Kenneth J. Phelps, Jr.		Present
MAURY	George A. Fiedler		Present
	Thomas R. Duncan		Present
MONTGOMERY	O. S. Lutan		Present
NASHVILLE	Charles W. Eckstein		Present
	Doran D. Edwards		Present
	Robert Chalfant		Present
	R. Benton Adkins		Present
	C. Gordon Sell		Present
	Melborne Williams		Present
	John L. Farringer, Jr.	Present	Present
	James H. Grawdon, Jr.	Present	
	Ray W. Hester		Present
	Robert W. Ikard	Present	Present
	John W. Lamo	Present	Present
	Sarah H. Sell	Present	Present
	Paul R. Stumb	Present	
	John B. Thomison	Present	Present
	John K. Wright	Present	Present
	Charles M. Gill		Present
	Howard L. Salyer		Present
	William B. Howell		Present
	Ann H. Price		Present
	Robert B. Snyder		Present
	Samuel H. Dillard		Present
	Robert C. Dunkerley, Jr.		Present
OVERTON	Will G. Quarles, Jr.	Present	Present
PUTNAM	Charles E. Jordan, III	Present	Present
RUTHERFORD	Olin O. Williams	Present	Present
	Rodney Bryant	Present	Present
SMITH	Steven Hawk	Present	Present
SUMNER	Ted W. Hill	Present	Present
WARREN	Harry E. Burck	Present	Present
WHITE	Robert Baker	Present	
WILLIAMSON	Joseph Willoughby	Present	Present
WILSON	J. C. Bradshaw, Jr.	Present	Present
WEST TENNESSEE			
CONSOLIDATED	Swan Burns, Jr.	Present	
	Lee Rush	Present	Present
	Montie E. Smith	Present	Present
	James H. Dannell	Present	Present
	George Dodson		Present
	S. Lane Bicknell		Present
HARDIN	John Lay	Present	Present
HENRY	Joe D. Mabley, Sr.		
MEMPHIS-SHELBY	Rex Amanette	Present	Present
	Leland R. Cornelius	Present	Present
	William D. Falvey	Present	Present
	Richard M. Pearson		Present
	Hamel B. Eason	Present	Present
	Dee J. Canale	Present	Present
	Fenwick W. Chappell	Present	Present
	F. Hammond Cole, Jr.	Present	Present
	T. Kyle Cresson	Present	Present
	Thomas A. Curry		Present
	McCarthy DeVere	Present	
	James C. Fleming	Present	Present
	James T. Galyon		Present
	Albert J. Grabmeyer, III		Present
	Dennis A. Higdon	Present	Present
	James A. Mann		Present
	Phil E. Orpet, Jr.	Present	Present
	James W. Pate	Present	Present
	Phillip A. Pedigo	Present	Present
	Daniel J. Scott, Jr.	Present	Present
	Robert L. Summitt	Present	Present
	Phillip E. Wright, II	Present	Present
	Jesse C. Woodall, Jr.	Present	Present
NORTHWEST	Arden Butler, Jr.	Present	Present
	J. W. Shore	Present	Present
TIPTON	Warren Alexander	Present	Present

The above information was taken from attendance records signed by the delegates.



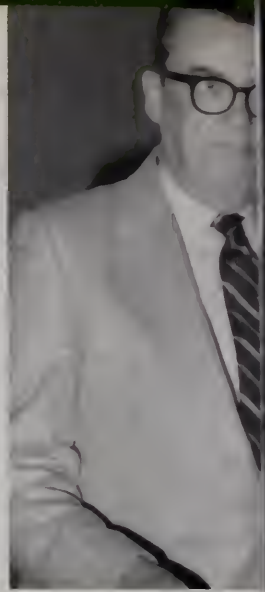
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TENNESSEE MEDICAL ASSOCIATION

149th Annual Meeting

Knoxville, Tennessee

April, 1984



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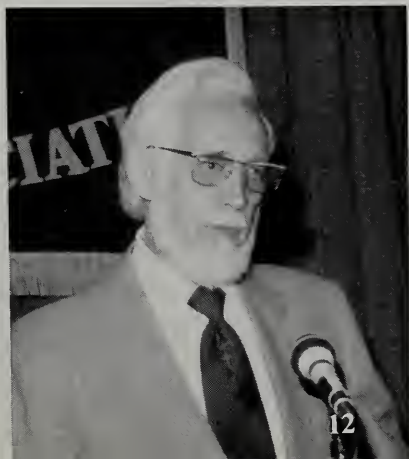
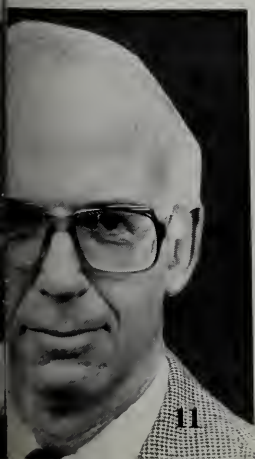


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Outgoing TMA president Dr. Nat E. Hyder, Jr., Johnson City (right) relinquishing gavel to incoming president Dr. Thomas K. Ballard, Jackson. (2) Outstanding Physician of the Year Award recipient, Dr. John Burkhardt, Knoxville. (3) Distinguished Service Award is presented to Dr. Allen S. Edmonson, Memphis (left) Dr. Clarence R. Sanders, Gallatin, TMA Board Chairman. (4) Distinguished Service Award is presented to Grant W. Liddle, Nashville (left) by Dr. Sanders. (5) AMA Board member Dr. John H. Dawson addressing House. (6) Community Service Award recipients (left to right) Mrs. Patricia Cole Thurston, Maryville; Mrs. Eline Haynes Yarbrow, Tiptonville; and Mr. Mason Granger, Memphis. (7) A special gavel is presented to Charles E. Allen, Johnson City (left), outgoing speaker of the House, by Dr. Malcolm R. Lewis, incoming speaker, recognizing Dr. Allen's years of service as speaker and vice speaker of the House. (8) Health Project contest winners with teachers Mrs. Margaret Jarrell (left) and Miss Jennifer Wells (right). (9) Recipients of A-Erf checks from five of the six Tennessee medical institutions that received checks, with Mrs. Dottie Thner (right), outgoing TMA Auxiliary president. (10) President's Banquet entertainer, Doc McConnell. (11) PACT luncheon speaker Mr. David Broder, Washington Post syndicated political columnist. (12) Medicine Religion Breakfast speaker Dr. Robert van Zandt Bucklin, La Jolla, Calif. (13) Dr. and Mrs. Thomas K. Ballard and Dr. and Mrs. Nat E. Hyder, Jr.



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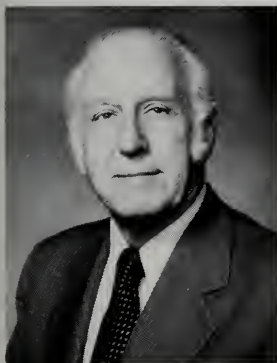
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THOMAS K. BALLARD

Involvement

Have you ever stopped to think what the word involvement means? According to *Webster* involvement means to bring into connection; to roll up within itself; to make intricate; to entangle in difficulty and danger, or to occupy the attention of. How does this apply to us as physicians?

You well know that we do not roll up within ourselves. Most physicians are outgoing personalities who are interested, not only in their practice, but in the environment that surrounds them, the community in which they live, the state in which they practice, and the nation as a whole. We cannot roll up like an armadillo in its shell. We do not want to entangle ourselves in difficulty or danger; however, we do want to give our attention to the present and future situations.

Do you realize how many civic organizations you belong to, how many church organizations, how many medical organizations, specialty societies, or other varied and sundry affairs in which you are involved? I do, and I am amazed at what occupies my attention and my time outside of patient care.

The coming year is going to bring many changes in the way we practice medicine, changes that will occupy a great deal of our time and attention. I speak specifically of the prospective pricing system with its diagnosis related groups. We must take a positive attitude. It is the law of the land and must be followed even though I personally think it is ill-advised.

We will have to be involved in decision making concerning our patients. We have to be involved with our hospital administration in keeping better records, in learning how much various procedures cost, in learning how much medications cost, and in learning how each individual hospital operates. In doing so, however, we must never forget to maintain quality care for our patients.

At this time we do not wish to roll up within ourselves, nor do we want to make things more intricate than they already are. We must address our problems, solve our problems, and by doing so see that the patients of Tennessee have the best medical care of any state in the union.

As responsible physicians we will have to become involved in all levels. By doing so we will learn, and we will grow in our knowledge and thinking.

Thomas K. Ballard MD

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JUNE, 1984

editorials

Time to Smell the Roses

As I have observed without any originality on these pages in addressing any number of topics, one really can't have it both ways. No matter how desirable, it is one of those things that all your piety and wit cannot accomplish. Over the years I have sat through interminable debate on this or that inconsequential matter to which the House of Delegates of the Tennessee Medical Associa-

tion (TMA) has been required to direct its attention, drivel during which dazed delegates have dozed and mentally died apace. So when, near the end of the annual meeting just past, Kelley Avery remarked in addressing the House that this was undoubtedly the dullest assembly he had ever attended, I wasn't sure whether to laugh or cry. This quandry was compounded when one of my Nashville colleagues allowed that we had permanently lost her and two other first-timers from our delegation. My response was that it was a breath of fresh air, and that dreary windbags have driven off a lot more delegates than brief tedium ever will.

I suppose that when one has endured protracted assault on the intellect, the mere fact of it lulls the participant into a smug sense of accomplishment, whether or not anything at all has actually come of it. In actuality, the House, in winding up its business in slightly less than two hours on Saturday morning, had more to show for it than after many sessions twice its length. It is when instead of heeding the advice of its reference committees the House feels called upon to act as a committee of the whole that things bog down. This is not infrequently due to fumbling efforts by the reference committees to distill to the satisfaction of the House the wisdom or lack of it imparted through testimony before them. This time debate was brisk in the reference committees, and the outcome was reflected in the workmanlike reports, so that little was left to be said on the floor. Since even this does not deter some of the more voluble members, one must assume that either they were absent or displayed uncharacteristic but admirable restraint. Dr. Avery's remark that he wished some of the fireworks in the reference committee hearings had been saved for the House evoked not a little derision.

Although it did little for the busy delegates directly, Mother Nature cooperated in making the opening days of the Dogwood Arts Festival, which coincided with the meeting, a delight for their "significant others" (a descriptive term, incidentally, that has the implication for me that everyone else is insignificant, which I doubt most users of the term actually mean); this in itself is an indirect benefit to the delegates, since a grumpy spouse is a definite handicap.

Tennessee is as richly endowed by Nature as any place on earth, and in springtime she is at her most glorious. It is appropriate that Knoxville, which with the help of the flowering trees of springtime has remarkably changed the met-

ropolitan image described by John Gunther in the mid-forties as the ugliest in the United States, possibly excepting the New England mill towns, should honor the dogwood, and it is a rare treat for the TMA to convene there during the festival. This was our third time to do so, and it has been a pleasure to watch the festival grow in stature over that period to one of national recognition. The specialty meetings were well attended, allowing our colleagues to take full advantage of this wonderland of Nature.

As to the accomplishments of the House, which though not spectacular were nonetheless substantial, they comprise as usual this issue of the *Journal*, and need no great elaboration here. The House made some minor changes in its constituency, allowing appropriate county societies one voting medical student delegate for each medical school within its jurisdictional area; it also opened the way for the chief medical officers of the state departments of Health and Environment (DHE) and Mental Health and Mental Retardation (DMHMR) to become ex-officio members of the House in the event the commissioners are not physicians, as is now the case for the DHE. The House defeated a by-laws amendment that would have established succession to the presidency by the vice-president from the grand division of the president, should the president be unable to serve. This was done at the request of the Board, which is presently studying the office as to ways it might be upgraded, as well as to establish succession so as to relieve the president-elect of the possible necessity of serving two terms, an onerous and well nigh impossible task.

Though the House unanimously supported the voluntary fee freeze requested by the AMA, it requested that the AMA take note of this sacrifice by freezing dues during this period, a measure reported by John H. Dawson, M.D., of Seattle, Washington, representing the AMA Board of Trustees, to be looked on with favor by the Board. The House further went on record as deploing the singling out of the medical profession by the federal administration and the U.S. Congress for restrictive legislation in attempts to enact what amounts to confiscatory taxation in the form of a mandatory fee freeze and mandatory assignment, with severe penalties for failure to comply. This is clearly discriminatory, and therefore unconstitutional, yet neither the government nor the courts have a notable record of adhering to constitutional provisions where matters

of policy or the public purse are concerned. The Constitution is rewritten every day to suit the situation, a matter that must evoke much weeping and wailing and gnashing of teeth from its drafters, should they be observing us from some more propitious clime.

The notion that the physician is in charge of the medical care of his patient is rapidly approaching the realm of fiction, and in an attempt, likely futile, to head off this trend, the Tennessee Chapter of the American College of Surgeons submitted and the House unanimously adopted a resolution opposing mandatory second opinion, as presently required for payment by third party carriers. There is no denying that second opinions are frequently desirable for optimal patient care, and in fact the custom of consultation is firmly embedded in medical practice. The carriers, including governmental agencies, however, are entering into the practice of medicine and interfering with patient care by arbitrarily deciding that the least expensive procedure is therefore the proper one for the patient, and predicated payment on that basis. This is certainly dangerous; if there were any ethics in the insurance industry, which it would appear there are not, it would be unethical; it should be illegal, as it could in some instances lead to the death of patients.

In an attempt at legitimate cost control, in which the less expensive procedure may often benefit the patient, a resolution was adopted that requested insurance coverage for procedures, with attendant costs, carried out in the physician's office. This could result in significant cost savings, and also frequently result in superior patient care. It would encourage ambulatory surgery either in the hospital outpatient department or the office, which would reduce loss of work time for the patient, as well. This is an all too infrequent instance in which cost-effectiveness and improved quality co-exist.

This is by no means all of the significant actions taken by the House, and I commend the account elsewhere in the *Journal* to your attention. The committee members are the unsung heroes among your colleagues, and their activities in your behalf are vast. Unfortunately, accounts of them rest forever in limbo. If I could, I would publish every committee report, but funds do not permit. You will therefore never know most of what the TMA has done for you lately. Remember that the TMA is you, and many of your colleagues are working hard for medicine

and its practice, which means your practice.

Finally, in a resolution dear to an editor's heart, the House adopted a resolution aimed at suppressing the proliferation of abbreviations. In the first place excessive abbreviation causes communications to break down, as it appears each individual adopts his own shorthand. Where patient care is concerned, it is dangerous. Certain abbreviations are well established, but even those should not generally be used in medical communication unless first defined. It takes only slightly more time to write the entire term, and if it is written clearly, it obviates misunderstanding. There is no excuse but laziness for excessive abbreviation or illegible penmanship. Our patients can no more afford them than an improperly made incision or a misplaced decimal in dosage.

And so another year begins. The final word: Here's to more "dull" House sessions. It gives one more time to smell the roses (or see the dogwood) along the way.

J.B.T.

On Dying Life and Living Death

Among the thorniest questions plaguing society for the past couple of decades or so are those relating to life—when it begins, and whether or not, and if so when and by whom, it should be terminated. I suppose this has been something of a problem ever since Cain did away with Abel, but it gained momentum in this country as liberated womankind began demanding relief from unwanted pregnancies. The fetus has been either relegated to the trash heap or defended on both religious and constitutional grounds by pro-abortion and pro-life groups, respectively. In its wisdom, the Supreme Court has ruled that life begins not at conception but when Br'er Fetus is on its own, so if you send a few million (billion?) immortal souls on to their reward prematurely, not to worry. (Pragmatically speaking, perhaps they are better off in the long run.) Absolutes have nothing to do with the decision. It is what society wishes.

Following birth, the matter becomes less clear as to who lives and who dies (not that it is clear prebirth—only legal). For purposes of this discussion I shall disregard capital punishment and military action, and focus on some things that involve us as physicians.

The world population, or at least that segment of it in the United States, is divided on the ques-

tion of prolongation versus termination of life, active or passive, into three camps: two activist fringe groups, making up only a few percent, I should judge, with the euthanasia people on one end and the right-to-lifers on the other; in the center reside the approximately 99 and 44/100 percent who have not considered the issue either because they don't care, don't wish to be bothered, or have never heard of it, and so on, or who having considered it find it extremely confusing and believe generalization to be impossible. The problem becomes compounded by the increasing elderly population and our ability to indefinitely preserve by artificial means the vital functions of deformed infants, decerebrates of all ages, and the aged—all in the face of dwindling funds to care for them.

Reacting to the famous (or infamous, as you prefer) case of Baby Jane Doe, the federal government decreed that regardless of the wishes of the parents, any infant that breathes is to be sustained by all available means. To enforce its regulation, it has inserted itself between the doctor and his patient and the parents and their child. Although making an exception in cases where brain death is proved, and allowing for withholding "heroic" resuscitative measures, society has continued to look with disfavor on termination of life, regardless of the wishes of the patient or, in the case of the mentally incompetent, the patient's family (legally, the next of kin).

A few weeks ago the governor of Colorado was quoted as saying that the elderly have an obligation to die. This is, of course, not at all what he said. He was speaking only of the aged patient who is terminally ill. I suspect that those of us in or approaching the age group defined as elderly would agree with the governor. In any case, the statement brought cries of "Naziism!" from right-to-lifers, and plaudits from the euthanasia groups, who consider quality of life all important.

Insofar as the majority of mentally competent adults are concerned, most of the squabble is much ado about little or nothing, since if they do not wish to be hooked up to tubes and wired for sound they can simply leave the hospital or refuse to go there. Only in the situation in which the patient has nowhere else to go (this is where the hospice comes in handy), or when the patient becomes mentally incompetent terminally, is there a potential problem.

Those of us who subscribe to Judeo-Christian tenets believe the individual has an obligation to

live constructively all the days given him. Even the invalid or terminally ill can by God's grace minister by word or attitude to those around him. Nevertheless, there comes a time to die, and our present problems arise from our ability to postpone that event by means that only torment the patient. I think no compassionate physician wishes this for any of his patients, and where all hope of return to a satisfactory life has fled, he will not prolong the process of dying.

This is a medical decision, though, a matter between physician and patient that begs no intrusion from any third party, regardless of how altruistic the motives, and least of all from government. Where the physician has an established relationship with the patient and his family, the physician can anticipate no recriminations. It is where no such relationship exists, and particularly in instances where there may be family hostility, that the physician may become apprehensive and pull out all the stops, so to speak, subjecting the patient to needless pain and discomfort that is not life-saving but only death-delaying, and depleting of family funds.

In an attempt to obviate such exigencies, a resolution was introduced into the TMA House of Delegates urging physicians to respect the elderly mentally incompetent patient's wishes about prolonging his death when those wishes were expressed, or better, documented, while he was yet competent, call it what you like. The House defeated the resolution, although it actually was not defended on the floor, and was therefore really defeated in reference committee on several grounds, the first being that it was unnecessary. A lot of peripheral trivia having to do with the foregoing discussion was introduced into the testimony, but more importantly, the resolution made unfortunate use of the term "living will," which, though it was not the intent of the resolution's author, gave the implication to its opponents of favoring legislative support, despite disclaimers in the resolution itself that the provisions in order to take effect must be consistent with existing law. The Board of Trustees had favored the resolution, which they saw as complementing, and not in conflict with, the resolution that the House did adopt, opposing enactment of any death act. That resolution reaffirmed the previously stated position of the House that favored patients indicating their wishes, and commented as a "whereas" that the physicians of Tennessee have always attempted to consider and honor reasonable requests not to continue life support.

Perhaps this is so, and no further statement needs to be made by the House. Certainly all supporters of the "living will" resolution oppose any legislative interference, and it was because a significant segment of the House viewed the resolution as inviting, even though it did not advocate, such legislation that all support for it was withdrawn.

Having said that, as one of the original supporters of the resolution I believe physicians need to take a strong stand as to their obligation to honor the expressed wishes of a patient, documented or otherwise, that his death not be prolonged, even though he might subsequently have become incompetent. Arguments that an individual cannot anticipate his feelings about dying are specious when applied to the aged, infirm individual who has lived a full life; further, a distinction must be made between termination of life and prolongation of death, as they are far, far from being the same thing, notwithstanding contrary opinions of some of the right-to-lifers, most if not all of whom are young, and therefore speak of things they know nothing about.

Perhaps no further action by the TMA is necessary. Even so, the matter needs to be given the serious attention of every physician who cares for elderly patients.

J.B.T.



William T. Black, Jr., age 76. Died April 9, 1984. Graduate of Northwestern University Medical School. Member of Memphis-Shelby County Medical Society.

Frank Alexander Latham, age 76. Died March 24, 1984. Graduate of University of Illinois Medical School. Member of Memphis-Shelby County Medical Society.

Thomas L. Lomasney, age 63. Died April 6, 1984. Graduate of Boston University School of Medicine. Member of Knoxville Academy of Medicine.

Haskell B. McCollum, age 65. Died April 4, 1984. Graduate of University of Tennessee College of Medicine. Member of Greene County Medical Society.

Arnold M. Meirowsky, age 73. Died April 2, 1984. Graduate of University of Cologne Medical School. Member of Nashville Academy of Medicine.

TMA Members Receive AMA Physician's Recognition Award

Fifty-three TMA members qualified for the AMA Physician's Recognition Award during March 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Ira L. Arnold, M.D., Chattanooga
Robert F. Baker, M.D., Sparta
Thomas M. Beahm, M.D., Chattanooga
Daniel F. Beals, M.D., Knoxville
Lana S. Beavers, M.D., Shelbyville
James B. Bell, M.D., Seymour
Danny J. Bramlett, M.D., Sparta
James F. Cleveland, M.D., Chattanooga
Robert E. L. Craig, M.D., Chattanooga
Phillip H. Dirmeyer, M.D., Memphis
Neil B. Edwards, M.D., Memphis
Nicholas H. Edwards, M.D., Grand Junction
John W. Ellis, M.D., Trenton
George S. Flinn, Jr., M.D., Memphis
Robert B. Gaston, Jr., M.D., Nashville
Frank H. Genella, Jr., M.D., Oak Ridge
Philip Goldhammer, M.D., Memphis
Robert L. Haley, Jr., M.D., Madison
William H. Hill, M.D., Madison
David H. Horowitz, M.D., Nashville
James W. Jackson, M.D., Dickson
Colin L. Kamperman, M.D., Alcoa
Duval H. Koonce, M.D., Jackson
Sarbjeet S. Kumar, M.D., Springfield
Aaron M. Lefkovits, M.D., Memphis
William A. Loy, M.D., Oak Ridge
Oscar M. McCallum, M.D., Henderson

David H. McConnell, M.D., Newport
Alexander C. McLeod, M.D., Nashville
O. L. Merritt, M.D., Dandridge
James O. Miller, Jr., M.D., Madison
Albert J. Mitchum, M.D., Erin
Paul D. Parsons, M.D., Erin
Norman S. Propper, M.D., Kingsport
Larry D. Reed, M.D., Crossville
Jeffrey P. Robbins, M.D., Bristol
Kenneth B. Rule, M.D., Knoxville
John C. Rylands, M.D., Knoxville
Jack C. Sanford, Jr., M.D., Memphis
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Bruce I. Turner, M.D., Nashville
James Van Blaricum, M.D., Winchester
Dale A. Van Slooten, M.D., Lewisburg
James H. Williams, M.D., Milan
Philip G. Williams, M.D., Milan
George B. Wyatt, M.D., Jackson
Coulter S. Young, M.D., Manchester

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

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John M. Bedwinek, M.D., Knoxville
Marty P. Gagliardi, M.D., Knoxville
Thomas G. Harrell, M.D., Knoxville
David F. Hassell, M.D., Knoxville
Kimball I. Maull, M.D., Knoxville
Barrett A. Schaefer, M.D., Knoxville
Edward D. Snyder, M.D., Loudon
Richard S. Smith, M.D., Knoxville
George W. Vick, M.D., Knoxville
A. Walter Zimmerman, M.D., Knoxville

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Rebecca R. McIntyre, M.D., Memphis
Nora V. Reyes, M.D., Memphis

(Student Member)

Felix E. Williamson, III, Memphis

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George E. Wiggins, M.D., Madisonville

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William H. Edwards, Jr., M.D., Nashville
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Harvey S. Wilks, M.D., Nashville

NORTHWEST TENNESSEE ACADEMY OF MEDICINE

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SMITH COUNTY MEDICAL SOCIETY

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SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Antonio G. Valdes-Rodriguez, M.D., Kingsport
William J. Schermer, M.D., Bristol

WASHINGTON-UNICOI COUNTY MEDICAL ASSOCIATION

Michael L. Whitson, M.D., Johnson City

WILSON COUNTY MEDICAL SOCIETY

Dalton B. McInnis, M.D., Lebanon
Stephen L. Snyder, M.D., Lebanon

WILLIAMSON COUNTY MEDICAL SOCIETY

Paul D. Parsons, M.D., Franklin

personal news

Archer W. Bishop, Jr., M.D., has been elected chief of staff at Fort Sanders Regional Medical Center in Knoxville for 1984. Other officers elected were *Dean Conley, M.D.*, chief of staff-elect; and *Richard Brinner, M.D.*, secretary. (This item was published in the April 1984 issue of the *Journal*, but we had a wrong first name for Dr. Bishop.)

Thomas H. Metcalf, M.D., Oak Ridge, has been certified as a Diplomate of the American Board of Obstetrics and Gynecology.

Fontaine B. Moore, Jr., M.D., Memphis, has been named president of the Southeastern Section of the American Urological Association.

The following TMA members have been elected to fellowship in the American College of Physicians: *William B. Harwell, Jr., M.D.*, Nashville; *Mark C. Houston, M.D.*, Nashville.

national news

From the AMA's Office in Washington, D.C.

Mandatory Assignment Defeated

In major action in April, the House rejected a plan that would have required physicians to accept assignment on all Medicare inpatient claims.

The legislators may move instead toward adoption of a Senate alternative, endorsed on April 14, which would freeze prevailing and customary fee limits for all physicians for one year. The freeze would be continued on prevailing fee limits for a second year for those physicians who refuse to take all claims on assignment.

The matter will now be taken up in a conference with the Senate which included its physician freeze and assignment changes in a Finance Committee package of spending and tax measures approved in a marathon Senate session just before recess.

The Senate specifically stipulated that Sens. Edward Kennedy (D-MA) and Max Baucus (D-MT) may offer amendments to the Medicare section. Kennedy intends to offer amendments that would eliminate increases in the Part B deductible and premiums called for in the Finance bill. Baucus also wants to eliminate the increase in the Part B deductible but would allow the premium increase to remain in effect through 1986 and then sunset in 1987. Both may offer language to add a monitoring mechanism to the physician freeze proposal.

No-Fault Malpractice Bill Introduced

A professional liability bill that was more than a year in the making has been introduced in Congress by Reps. Henson Moore (R-LA) and Richard Gephardt (D-MO).

Called the Alternative Medical Liability Act (H.R. 5400), the measure would apply a no-fault approach of sorts to patients whose care is paid for by the federal government. These would include Medicare and Medicaid beneficiaries as well as military personnel, veterans and federal employees, the sponsors say.

The bill would limit the patient's claim to malpractice awards if the hospital and/or physician offered a settlement within six months of the occurrence on which the claim is based.

The settlement would be based solely on the patient's economic loss—including wage loss, and the cost of rehabilitation and medical treatment. Once the offer had been made, the patient would have no further recourse through the courts except to dispute the appropriateness of the amount. He could not sue for pain and suffering or other damages.

In cases where the provider did not offer a settlement, the current tort system would continue to apply. Unlike an earlier draft, the latest measure leaves the burden of proof with the plaintiff.

The bill also gives states the option of setting up their own malpractice insurance systems that meet the above criteria. In states that hadn't acted by Jan. 1, 1987, the federal law would take effect. Gephardt and Moore say they hope that some states will go beyond the federal law and apply its criteria to all state residents—not just those who are federal beneficiaries.

Downturn in Rising Hospital Costs Reported

Hospitals and federal agencies have reported a downtrend in rising hospital costs that some observers are attributing in part to the implementation of Medicare's diagnosis related groups.

Data detailing the new trend was presented to the

congressional Joint Economic Committee by American Hospital Association Executive Vice President Jack Owen who said the statistics show that DRGs are working and that they are holding down costs for other payers as well as for Medicare.

In 1983, the rate of increase in total hospital expenses slowed from 15.8% in 1982 to 10.2% in 1983. The reduction in the rate of increase in inpatient expenses was even greater—from 15.6% in 1982 to 9.6% in 1983.

Owen said the lower rates of increase are due in part to a slowdown in hospital hiring rates and to a drop in utilization of hospital services. Hospital employment rose by only 1.4% in 1983, he reported, compared to 3.7% in 1982. Overall admissions decreased by 0.5% in 1983 and even admissions for those 65 and older, which went up by 4.7%, did not increase as rapidly as in previous years. Lengths of stay for patients 65 and older were down by 4.5%.

Costs Up, But Americans Living Longer, Better

By 1983, health care costs in the United States were more than \$350 billion—up 770% from 1965. In 1984, for the first time, Americans will spend more than \$1 billion a day on health care.

During similar periods of time, however, American life's expectancy has increased by about five years and infant mortality rates have been halved. Deaths from heart disease have declined by 25% and deaths from stroke by 40%. The advances have come about through major technological improvements which themselves often are costly and which increase costs still further by keeping more people alive longer.

These two sides of the health care cost argument were presented before a Joint Economic Committee hearing April 12 in a hearing that in some respects pitted the nation's large corporations against health care providers.

Most outspoken among the corporate representatives was former Department of Health, Education and Welfare Secretary Joseph Califano, a Washington lawyer who now heads a special Chrysler Corporation committee on health care. Califano told the congressional committee that health care costs are "an unfair burden . . . for American business as it seeks to compete with foreign industry." He reported that in 1984, Chrysler will have to sell about 70,000 vehicles just to pay its health care bills of more than \$400 million or about \$5,700 per active employee. He contrasted that with the \$815 a year the Japanese Mitsubishi Motor Corporation (in which Chrysler has an investment) spends per worker.

Califano and other business representatives, including Ford Motor official Jack Shelton, complained that government efforts to hold down health costs to date have shifted costs to business. Between 1970 and 1982, Shelton said, health costs in the United States rose by 332%. At the same time, business health care costs went up by 700%.

An American Association of Retired Persons (AARP) representative said costs are also being shift-

ed to the elderly through some \$26 billion in Medicare cuts in the past three fiscal years.

But American Hospital Association Executive Vice President Jack Owen reported that Medicare is not currently shifting costs. He said, however, that shifts may occur if prices for diagnosis related groups are lowered appreciably and observed that Medicaid is not paying its full share of costs.

Owen and AMA Board Member Alan Nelson, M.D., also maintained that health care costs are due for the most part to improved technology and better access that came about as a result of consumer demand. Even if one assumes that all waste in the health system could be rooted out entirely, Dr. Nelson said, "the cost of health care probably would show a one-time drop and then resume its climb unless technological advances are halted. As long as technological capabilities improve and as we continue to live longer, then of course costs will go up," he told the committee.

Senator Says Competition Is Working

Amidst predictions that the Medicare hospital trust fund will be depleted by 1991 or shortly thereafter, one influential U.S. senator is arguing that congressional action to fix Medicare now would be premature.

Sen. David Durenberger (R-MN), a champion of the competition approach to holding down health costs, said at a recent Senate Finance Committee hearing that he believes today's solutions to the Medicare problem may not be needed or applicable by the projected date of bankruptcy. His arguments are based on the premise that competition is already taking hold in the health field.

The hearing concentrated on the recommendations of a Medicare advisory group chaired by former Indiana Gov. Otis Bowen, M.D., but also focused on projections regarding the actual date at which the hospital fund will be depleted.

FTC Pokes into Physician Ads

At an April meeting sponsored by the Federal Trade Commission, participants debated the advantages and disadvantages of "quality claims" in professional advertising.

Traditionally, medical ads have described only the physician's office hours, specialty, address, and phone number. Now, an increasing number of ads describe the physician's qualifications as well.

"I predict a transition from advertising 'kind of practice' to 'quality of practice' which will trigger a whole new round of (legal) fights," says attorney Nancy Buc of Weil, Gotshal & Manges.

Physicians, for the most part, said they fear that patients are easily led astray by exaggerated claims of competence. John Munna, M.D., of the American Society of Plastic and Reconstructive Surgeons, said the ads "offer unrealistic psychological inducements."

Said Robert Moser, M.D., of the American College

of Physicians: "The sole purpose of advertising is to persuade a consumer to purchase a product. When slick Madison Avenue techniques, designed to appeal to the emotions, are applied to the health care, the consumer could be influenced to make a dangerous and bad decision."

According to FTC staffers and attorneys, however, the medical profession's fears are exaggerated and unjustified. The FTC has received many complaints on health care advertising from professionals. Upon investigation, however, most of these ads were neither false nor deceptive, but simply demeaning to the profession, according to FTC attorney Jonathan Bromberg.

"There is little evidence of fraudulent or misleading advertising, according to Irwin Braun, President of Braun Advertising, Inc. Of five state regulatory agencies contacted by Braun, few reported any incidents of problem advertising. One state attorney told him: "The majority of complaints are from other professionals. We have practically no consumer complaints." Even when ads do violate the law, it is the professionals, not consumers, who notice, Braun says.

The FTC has no precise definition of what exactly constitutes a "false and deceptive" quality claim. It looks for evidence of actual harm, either physical or monetary; an ad that is simply distasteful receives little FTC attention. In the past several years, they have prosecuted roughly a dozen cases.

"The FTC language regarding advertising is so broad that it appears to render the medical community powerless against an unethical physician advertising his services," AMA President-Elect Joseph F. Boyle, M.D. said.

Professional societies are reluctant to jump into the fray, fearing anti-trust litigation. Most medical societies still monitor local advertising: first-time offenders are reprimanded and repeat offenders may be suspended or dismissed from the society. The AMA has a policy against false and deceptive advertising. But the old code of ethics against advertising is no longer.

Participants in the meeting urged the AMA and FTC to work together to combat deceptive ads. They could design a brochure that would define legitimate advertising to AMA members. But the FTC should confine their vigilance to overseeing physicians' enforcement of their own rules, leaving them free of direct regulation, they proposed.

The FTC offered an olive branch: "We're not opposed to self-regulation to professionals as long as it is intended to reduce deception, not preserve self-interest," said Michael McCarey of the Bureau of Consumer Protection. "The AMA has a valuable and unique role to play here."

"We ask that if you see an example of deception, please send us a copy, explaining why it is deceptive, with substantiation, if possible," he said.

Ophthalmologists Call on FTC

The American Academy of Ophthalmology asked the Federal Trade Commission (FTC) in April to investigate "false and misleading" advertising by optometrists, saying the ads pose a serious threat to con-

sumers.

Before taking action, however, the FTC says it may need evidence that the ads actually harm patients and are not simply part of an ongoing jurisdictional battle between the two professions.

Information in the ads that can mislead the public, according to the Academy, includes:

- References to "Dr. Jones, diseases of the eye," or to services such as cataract surgery which optometrists cannot perform legally.
- Use of the phrases "optometric medicine, medical optometrists, optometric physicians, or eye doctors in family practice."
- References to "total eye care" or "complete eye care services."
- Misleading definitions of ophthalmologists and optometrists.

The Academy does not wish to single out individual advertisers, but wants the FTC to investigate the general tone of optometric advertising, according to Academy attorney Clifford S. Stromberg.

The FTC will first determine whether the problem is confined to "fringe" practitioners or is industry-wide. If it decides there is evidence of a general dispute, it will then look for measurable harm—either physical or monetary—to consumers. This may require an extensive study of public perception of the differences between the two professions.

AIDS Virus Found

The big news in science from Washington in April was the report from Cancer Institute scientists that they had most likely found the cause of AIDS. Sensitive to charges that the AIDS problem was not getting all the attention it should, Department of Health and Human Services pulled out all the stops and held a high level press conference by Secretary Heckler to announce the finding. Scientists say the cause is most likely a virus that attacks the cells of the body's immune system.

AMA Calls for PRO Changes

The American Medical Association has requested modifications in the federal government's proposed method of contracting for oversight by peer review organizations (PROs) of hospital care to Medicare patients.

In a letter to Health Care Financing Administration head Carolyn Davis, Ph.D., the AMA called for added flexibility in the fixed price contracts the government will sign with PROs. The Association also urged that pre-admission review requirements detailed in a request for PRO contract bids be modified and called for an extension of the April 27 deadline for submitting PRO bids.

Meanwhile, proposed regulations governing the confidentiality of data collected by Medicare PROs and the use of PRO-recommended sanctions were issued late in April by the Health Care Financing Administration—just weeks before final PRO bids are due.

Final rules weren't issued until after the April 27

deadline for bids from organizations competing for PRO contracts, however, leaving open the possibility that the PRO contracts will have to be amended if changes are made in the final rules as a result of comments on the proposed regulations.

More on Assignment

A new bill from Sen. John Heinz (R-PA) would set up Medicare physician fee schedules and require physicians to accept assignment on all claims for services to Medicare inpatients.

The bill provides financial incentives for states to develop health care cost containment plans pertaining to all third party payers. To be called the Medicare Incentives Reform Act, the bill would also limit out-of-pocket costs for Medicare beneficiaries and increase federal excise taxes on cigarettes.

Physicians Protesting Medicare Statement

Groups representing organized medicine have asked the Health Care Financing Administration to either modify or withdraw a new statement they are being required to sign as part of Medicare's new diagnosis related groups payment system.

The statement, which must appear within the medical record of discharged hospital patients, requires the physician to attest that the principal and secondary diagnosis and procedures listed in the record are accurate. It also warns that intentional misrepresentation or fraud in connection with the record is "punishable by imprisonment, fine or civil penalty."

In a letter to Health Care Financing Administration head Carolyn Davis, Ph.D., the American Medical Association observed that there "is no mandate in the DRG law for the certification form" and requested a meeting to "explore whether this regulation can be withdrawn."

New Technologies Assailed

Many once-common medical practices—such as porta caval shunt surgery for patients with cirrhosis of the liver, stilbesterol for prevention of miscarriage, routine tonsillectomy, routine x-ray therapy for radical mastectomies—are now known to have serious and expensive side effects.

Sen. Claude Pepper (D-FL), chairman of the House Select Committee on Aging's Subcommittee on Health and Long-Term Care, convened a hearing in April to investigate the impact that untested medical technologies have on health care costs.

Physicians testified that increasing numbers of diagnostic procedures are being pressed into service without adequate testing. Procedures such as nuclear magnetic resonance, organ transplants, and apheresis need to be evaluated and compared to existing technologies, they urged.

At least 15% to 20% of all tests, procedures, drugs

and devices used in diagnosis and treatment are not worth what they cost, said Arnold Relman, M.D., editor of the *New England Journal of Medicine*. Some are no better than cheaper technologies already on the market. Others are ineffective. In a few cases, they actually may be harmful, he said.

New technologies are being developed and marketed so rapidly that their evaluation lags far behind. New technologies will continue to appear at an ever-increasing rate, said Seymour Perry, M.D., deputy director of the Institute for Health Policy Analysis at the Georgetown University Medical Center and former director of the now-defunct National Center for Health Care Technology.

Physician uncertainty is a chief cause of overutilization; because there is so little information about technology effectiveness, physicians tend to use a procedure or test whenever they think the patient might benefit, the witnesses said.

There are at least 45 private organizations now, such as the AMA's DATTA, involved in technology assessment. But their evaluations are disparate and fragmented, with little exchange of information. Their evaluations tend to focus on safety and effectiveness, rather than cost. Moreover, each organization has its own agenda with no plan for the overall national implications.

The physicians recommended use of an independent federal agency, with an advisory board to represent physicians, the health care industry, third-party payers, federal officials, and individuals from the economic, ethical, and legal communities.

announcements

CALENDAR OF MEETINGS

NATIONAL

- | | |
|-----------------|---|
| July 22-27 | International Conference on Head and Neck Cancer—Hyatt Regency and Baltimore Convention Center, Baltimore |
| July 27-29 | Association for the Care of Asthma, Inc.—Cloisters, Sea Island, Ga. |
| Aug. 9-12 | International Doctors in Alcoholics Anonymous—Hyatt Regency, Minneapolis |
| Aug. 12-16 | International Society for Experimental Hematology—Atlanta Downtown Marriott Hotel |
| Aug. 19-23 | American Society for Pharmacology and Experimental Therapeutics—Indianapolis |
| Aug. 20-22 | International Congress on Hyperbaric Medicine—Hyatt Regency, Long Beach, Cal. |
| Aug. 26-31 | American Physiological Society—Hyatt Regency, Lexington, Ky. |
| Aug. 27-29 | American Medical Fly Fishing Association—Ranch Hotel, West Yellowstone, Mont. |
| Aug. 31-Sept. 5 | World Congress on Pain (sponsored by Int'l Association for the Study of Pain)—Seattle |



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Highlights of the TMA Board of Trustees Meetings

April 11 and April 14, 1984

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at the first session of its regular second quarter meeting, April 11, 1984.

THE BOARD:

Committee Appointments	(See complete listing of committee appointments published elsewhere in this issue.)
TMA Leadership Conference	Heard a report on the TMA Leadership Conference held in February, with 116 people in attendance.
Appointment of Auditor	Named the firm of Ezra Jones & Associates as TMA auditor for 1984.
SVMIC	Heard a report summarizing the results of the recent survey conducted by TMA and SVMIC regarding medicolegal costs across the state.
Positions on Resolutions	Discussed in detail and voted to adopt positions on resolutions to be submitted to the TMA House of Delegates.
Prescription Drug Abuse Program	Heard a report from Dr. Sarah Sell on the Southeastern Conference on Prescription Drug Abuse she attended. Objectives of the conference were to make participants aware of problem sources and sources available for addressing the problem, allowing each state to establish a plan of action and goals to be achieved. Dr. Sell enlisted the Board's support in sponsoring, with other involved professional organizations, a request to AMA for their offered assistance. The Board voted to support the model AMA legislation.
Nominating Committee Recommendation	Agreed that the Chairman of the Board appoint a committee to review the duties and responsibilities of the office of Vice President and make recommendations for changes.
AMA Practice Workshops	Voted to support the Tennessee Department of Health and Environment's Physician Recruitment Exchange Program to include two AMA Practice Management Workshops.
Governor's Healthy Children Initiative	Endorsed the Tennessee Department of Health and Environment's grant proposal being developed in conjunction with the Tennessee Chapter of the American Academy of Pediatrics as a part of the Governor's Healthy Children Initiative. This is a four-year program to improve the health status of all children in Tennessee.
CME Mission Statement	Agreed that a Statement of Mission for Continuing Medical Education be approved.
Annual Audit Approval	Approved the 1983 TMA audit and first quarter operating report.
Recognition of Retiring Board Members	Presented plaques to Drs. Charles E. Allen, C. Eugene Jabbour, Malcolm R. Lewis, Clarence R. Sanders, H. Trent Vandergriff, and Charles W. White in recognition of their service to TMA as members of the Board of Trustees.

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at the second session of its regular second quarter meeting, April 14, 1984.

THE BOARD:

Election Results	Elected Dr. Luthur A. Beazley, Jr., Nashville, as chairman of the Board of Trustees and Dr. John R. Nelson, Jr., Knoxville, as vice chairman of the Board. Dr. Hugh Francis, Jr., Memphis, was elected secretary-treasurer, and Mr. L. Hadley Williams was reelected assistant secretary-treasurer.
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Elected as the Board's Executive Committee were Drs. Thomas K. Ballard, Jackson, chairman; Luthur A. Beazley, Jr., Nashville; Clarence R. Sanders, Gallatin; Nat E. Hyder, Jr., Johnson City; and Hugh Francis, Jr., Memphis.

Elected as the Finance Committee of the Board were Drs. Hugh Francis, Jr., Memphis, chairman; Thurman L. Pedigo, McMinnville; and William F. Buchner, Chattanooga.

**Impaired Physician Loan
Fund Board**

Named Drs. Charles B. Thorne, Nashville; George W. Holcomb, Jr., Nashville; William C. Anderson, Nashville; Howard W. Thomas, Savannah; and Hugh Francis, Jr., Memphis, to the Board of Directors of the Impaired Physician Loan Fund Board.

**Letter from Reference
Committee B**

Reviewed a letter submitted by the chairman of Reference Committee B, Dr. Clarence Goulding, expressing concern in regard to the meeting arrangements of the Emergency Medical Services Committee as stated in Committee Report No. 18. Executive Assistant William V. Wallace apprised the Board of the meeting arrangements of the committee and noted that the committee meetings were being held during the annual meeting to eliminate any reimburseable expenses by members of the committee. The Board agreed that scheduling of the Emergency Medical Services Committee meetings be done at the discretion of the chairman of the committee with any expenses reimbursed in the same manner as other committees.

**Task Force on Prescription
Drug Abuse**

Nominated Dr. David T. Dodd, Murfreesboro, to serve on the Governor's Task Force for prescription drug abuse.

**Health Care Costs
Task Force**

Named Dr. Thomas K. Ballard, Jackson, to represent TMA on a task force reviewing health care costs.

**1987 Annual Meeting
Headquarters**

Chose the Hyatt-Regency in Knoxville as the site of the 1987 TMA Annual Meeting.

AMA Board Member

Heard Dr. John H. Dawson, Seattle, Wash., who brought greetings from the Board of Trustees of the American Medical Association.

Help for Impaired Physicians

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

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(No Report)

FENTRESS

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Excess Major Medical Plan. Pays up to \$1 million after deductibles of \$25,000 or \$50,000 have been met.	Sentry Insurance of Stevens Point, Wis. (A Mutual Company)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
In Hospital Protection Insurance. \$20 to \$80 per day while hospitalized in addition to any other insurance. Spouse, children, and employees eligible.	Commercial Insurance Company of Newark, N.J. (A Subsidiary of the Continental Insurance Companies)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
24-Hour High Limit Accidental Death & Dismemberment Insurance. \$25,000 to \$100,000 coverage. May include spouse and children.	Commercial Insurance Company of Newark, N.J. (A Subsidiary of the Continental Insurance Companies)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
Professional & Premises Liability Insurance. Modified claims-made coverage from \$100,000/\$300,000 to \$10 million/\$12 million. Office package—contents, equipment, money, etc.	State Volunteer Mutual Insurance Company	State Volunteer Mutual Insurance Co. P.O. Box 70 Brentwood, TN 37027 Telephone: (615) 377-1999 or (800) 342-2239
Workers' Compensation Insurance. Standard coverage at approved rates with yearly savings opportunity based on claim experience. 35% savings paid in 1983.	Dodson Insurance Group	Mr. Glenn Cross 716 Robert Burns Drive Nashville, TN 37217 Telephone: (615) 361-6280
Disability Income Plan. \$1,000 Accidental D&D. Monthly indemnity up to \$5,000. Five year accident/five year sickness plan. Lifetime accident coverage and to age 65 for sickness. Optional hospital benefits. Plans also available for employees of members.	Commercial Insurance Company of Newark, N.J. (A Subsidiary of the Continental Insurance Companies)	Smith, Reed, Thompson and Ellis Co. P.O. Box 1280 Nashville, TN 37202 Telephone: (615) 361-6846
Overhead Expense Insurance. Benefits from \$300 to \$5,000 per month beginning on 31st day of disability and may continue for up to 24 months. Also provides coverage for equipment leasing.	Continental Casualty Company	John E. Lovelace and Associates, Inc. P.O. Box 452 Brentwood, TN 37027 Telephone: (615) 377-6361
\$100,000 Accidental Death & Dismemberment Coverage while a passenger in a licensed passenger aircraft or if struck by any aircraft. TMA membership only. As a membership service, this insurance is provided by TMA for every member at no cost.	Reliance Standard Life Insurance Company	Insurance Planning & Service Co., Inc. P.O. Box 1109 Chattanooga, TN 37401 Telephone: (800) 572-7389

Hepatic Scintigraphy in Patients With Clinical Evidence of Liver Disease

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Introduction

There are divergent opinions in the literature concerning the utility of liver-spleen scanning in the initial evaluation of patients with neoplastic disease. It has been proposed that the low yield of liver-spleen scans in cancer patients without evidence of hepatic involvement on physical examination or laboratory function tests does not justify their routine use. In order to define the place of hepatic scintigraphy in the evaluation of patients with neoplastic disease, we reviewed the experience at the Nashville Veterans Administration Medical Center.

Materials and Methods

Hepatic scintigraphy was performed approximately 15 minutes following the intravenous injection of 6 mCi of Tc-99m sulfur colloid. Images were obtained on a large field of view gamma camera using an information density of 3,000 counts per square centimeter for the anterior view with subsequent views obtained for the same time. Studies were also performed on a small field of view camera using a straight bore collimator by obtaining 800,000 counts in the anterior view

with subsequent views performed for the same time. Anterior, posterior, left anterior oblique, and both lateral views were obtained in all studies.

The official interpretations of 1,017 liver-spleen scans performed over an 18-month period were reviewed. The liver-spleen scans of those patients whose studies had been interpreted as demonstrating hepatic defects suspicious for metastatic disease were then examined by two other independent observers. On this review, clearly defined focal intrahepatic lesions were judged to be consistent with metastatic disease. The charts of these patients were then examined, and liver function studies (alkaline phosphatase, LDH, SGOT and bilirubin) at the time of the liver-spleen scan were recorded. The presence of a proven carcinoma, previously identified liver disease, a history of alcohol abuse and clinically detectable hepatomegaly were noted. Correlative information confirming the presence of hepatic metastases was sought.

A patient was defined as having clearly abnormal liver function studies if two or more values were elevated, or if one value was at least 50% greater than the upper limit of the normal range. The patient was defined as having borderline abnormal chemistries when a single value was elevated, but was less than 50% greater than the upper limit of normal. Clinically detectable he-

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patomegaly was defined as a liver span of 13 cm or more in the midclavicular line as detected by physical examination.

Results

One hundred and fifty-seven scans in 119 patients were interpreted as demonstrating hepatic defects. In 104 patients (140 scans) there was a known neoplastic disease (Table 1). Of these 104 patients, 100 (136 scans) had documentation of malignancy in the liver by other modalities: ultrasound or computed tomography, or liver biopsy or autopsy within two weeks of the radio-nuclide liver-spleen scan, or follow-up hepatic scintigraphy within ten weeks demonstrating progression of disease. Four patients with a known primary carcinoma (three lung, one breast) did not have hepatic metastases confirmed. Seventeen scans in 15 patients suspected of having malignancy in the liver were found to have other causes for hepatic defects (Table 2). This resulted in a false-positive finding in 10.8% of scans, in 12.6% of patients.

Of the 136 scans in patients with confirmed hepatic metastases or primary hepatic malignancy, nine (6%) had hepatomegaly alone, 32 (24%) had abnormal liver functions studies alone, and

88 (65%) had abnormalities of both (Table 3). Of the 32 scans with abnormal liver function studies alone, seven were defined as borderline elevations. Of the scans with both hepatomegaly and abnormal liver function studies, nine were borderline elevations. None of the 16 patients with borderline abnormal liver chemistries had a history of significant alcohol ingestion or history of other known hepatic disease. Of the 136 total scans with confirmed intrahepatic malignancy, 91 (67%) had increased alkaline phosphatase, 86 (63%) had increased LDH, 80 (59%) had elevated SGOT, and 42 (31%) had abnormal bilirubin levels.

In seven patients (5%), scans were performed when there was no clinical suspicion of hepatic malignancy, in which the presence of tumor in the liver was revealed by the sulfur colloid radio-nuclide scan and later confirmed by biopsy. This group comprised two cases of esophageal carcinoma, one patient with melanoma on whom two scans were performed, and one case each of prostatic carcinoma, adenocarcinoma of the lung, and oat cell carcinoma of the lung.

Discussion

There has been considerable controversy in the literature concerning recommendations for liver-spleen radionuclide scanning in the evaluation of patients with neoplastic disease. Many authors have reported a low yield with "routine" scans in general,¹ and in particular in the cases of certain malignancies such as breast carcinoma,^{2,4} myeloma,⁵ colorectal carcinoma,⁶ small cell carcinoma of the lung,⁷ and bronchogenic carcinoma of the lung.⁸⁻¹⁰ Although reports cite an incidence of liver metastases in neoplastic disease found at autopsy ranging from 33% to 62%,^{8,10-16} many studies bemoan the low rate of antemortem diagnosis.¹⁷ Rates as high as 15% false-positive and 21% false-negative interpretations have been found.¹⁸ Overall, reports of scan accuracy in detecting liver tumors range from 62% to 90%, with most near the 77% figure.¹⁹

In assessing modalities available to alert the physician of metastatic disease of the liver, there is again controversy. Physical examination for signs of hepatic disease or enlargement of the liver is thought to be up to 71%²⁰ and 74%²¹ reliable by some. One study found as many as 95% of patients with liver metastases having at least nonspecific symptoms, with 50% having right upper quadrant abdominal pain.²² Another study found 91% breast cancer patients with detectable

TABLE 1

PRIMARY NEOPLASMS IN 104 PATIENTS (140 SCANS)
WITH HEPATIC DEFECTS ON LIVER-SPLEEN SCAN

Carcinoma Type	No. of Patients	No. of Cases	% of Patients	% of Cases
Colon	17	34	16	24
Lung				
small cell	20	28	19	20
adenocarcinoma	12	12	11	8
squamous	8	8	8	6
Adenocarcinoma ? primary	10	12	10	8
Esophagus	5	7	5	5
Hepatoma	6	7	6	5
Pancreas	6	6	6	4
Bladder	5	5	5	4
Prostate	4	5	3	4
Melanoma	2	5	2	4
Lymphoma	1	3	1	2
Cholangiocarcinoma	2	2	2	1
Tongue	2	2	2	1
Gastric	1	1	1	1
Duodenal	1	1	1	1
Carcinoid	1	1	1	1
Breast	1	1	1	1
TOTALS	104	140	100	100

liver metastases to be symptomatic.⁴ Others believe that the presence of hepatomegaly is quite variable,^{16,23} as well as very difficult to detect.^{16,24}

The various laboratory parameters of liver function have been assessed in their ability to point towards the presence of hepatic metastases. Alkaline phosphatase determination has been viewed alternately as accurate in up to 90% of cases,^{6,19,25-29} inaccurate in 53%,³⁰ and variable³¹ in predicting liver involvement. Other studies have pointed to LDH determinations as being the most sensitive laboratory parameter in melanoma^{32,33} and small cell anaplastic bronchogenic carcinoma,¹⁰ and up to 92% accurate in colorectal carcinoma.³⁴ Still other studies have found 5' nucleotidase,^{25,35} or SGOT^{20,31} most helpful. Glutamyl transferase has been considered by some to be the most sensitive³⁶ but least specific³⁵ test. Although some authors have cited liver function chemistries as reliable in predicting hepatic metastases in up to 79% of the cases,¹⁰ their utility in general is limited by their low specificity.^{16,37} One author recently found no laboratory test having greater than a 65% accuracy.³⁸ Further complicating this issue has been the considerable variation in the definition of "abnormal" liver function: certain studies use as the criterion a specific percentage elevation over the upper limit of normal,³⁹ while others use any value above the upper limit of the normal range.^{7,40}

It has been stated that the clinical assessment of a patient has up to 75% sensitivity in detecting hepatic metastases, and the routine liver-spleen scans in the face of a normal clinical evaluation add little information,^{6,21,41} especially in the case of malignancies such as genitourinary tumors^{42,43} and some lymphomas.⁴⁴ Another body of work disagrees however, and has concluded that the accuracy of scans surpasses liver function studies

TABLE 3

CLINICAL FINDINGS IN 136 SCANS WITH DOCUMENTED PRIMARY LIVER TUMOR OR HEPATIC METASTASES

Finding	No. of Patients	No. of Scans
Hepatomegaly		
with alcohol abuse	1	1
without alcohol abuse	7	8
Abnormal liver chemistries		
with alcohol abuse	3	3
without alcohol abuse	26	29
Hepatomegaly and abnormal liver chemistries		
with alcohol abuse	9	9
without alcohol abuse	58	79
No clinical hepatic disease	6	7
TOTALS	110	136

by up to 39%,^{22,27,31,45-49} especially when dealing with certain malignancies such as gastric carcinoma,^{13,38} leukemia and lymphoma, and carcinomas of the lung, colon, pancreas, prostate, testes, bladder, breast, cervix and uterus.^{5,50} It has been suggested that the reliability of the liver-spleen scan may depend upon the biology of the tumor in question and its mode of liver involvement,¹⁹ with diffuse infiltration being difficult to detect. The rate of detection of hepatic metastases on scans may vary with the general stage of disease,⁵¹ as well as the extent of hepatic metastases. One study found that 100% of hepatic metastases are accurately diagnosed on scan if there is 50% or more involvement of the liver, whereas only 56% of metastatic cases are diagnosed if there is 25% or less involvement.²⁰ The detection rate also depends on the accuracy of interpretation of the scan. Not only do the criteria for an abnormal scan vary, thus varying the diagnosis,⁵² but there is also 20% to 25% inter-observer and 15% to 20% intra-observer variation in interpretation.⁵³⁻⁵⁵

In order to increase the accuracy of liver scanning, it has been suggested that the static scans be combined with other modalities in order to increase their ability to detect metastases. The use of dynamic liver perfusion studies has been suggested,^{52,56} as well as the complementary use of ultrasound examinations.⁵⁷⁻⁵⁹

One study found the most reliable combination to be CT and radionuclide scanning,⁶⁰ and another found a slightly increased concordance with surgical findings on CT (85%) compared to

TABLE 2

BENIGN DISORDERS ASSOCIATED WITH HEPATIC DEFECTS ON LIVER-SPLEEN SCAN

Condition	No. of Patients	No. of Scans	% of Patients	% of Scans
Cirrhosis	10	10	66	59
Hepatic congestion	2	4	13	23
Enlarged porta hepatis	1	1	7	6
Hepatic abscess	1	1	7	6
Hepatic cyst	1	1	7	6
TOTALS	15	17	100	100

radionuclide liver scan (81%).⁶¹ Peritoneoscopy following suspicious liver scans has been found to have a false-negative rate ranging from as low as 7%⁶² to as high as 34%.⁶³ Laparotomy and liver biopsy have been found to have as low as 5% false-negative rate⁶³ but this procedure has been considered by some to be too invasive⁴⁷ to perform routinely. Blind liver biopsy has been found in one study to have an accuracy of only 60%.⁴⁶ Hepatic arteriography has been seen to have up to 91% sensitivity⁶³ and 83% accuracy⁶⁴ in detecting liver metastases, and the combination of arteriography and scanning has been suggested.^{56,65} Though angiography potentially can furnish more detailed data, its potential for morbidity is high. Another comparative study that found 93% accuracy on arteriography and 87% accuracy on radionuclide scan in detecting hepatic tumors concluded that scanning is the preferred screening modality, and that arteriography, because of its invasiveness, should be reserved for preoperative assessment of resectability.⁶⁶ Combined liver-heart scanning has been called useful in the evaluation of suspicious left hepatic lobes,⁶⁷ but despite the interest in correlative examinations, a recent prospective study of 80 patients failed to reveal any significant differences in sensitivity, specificity, or accuracy in detecting liver metastases⁶⁸ when comparing the results of scans, ultrasound (80% accuracy each) and CT (84% accuracy).

Although some of the previous studies reporting poor results with liver-spleen scanning utilized now-outdated instrumentation,³⁸ malignancies smaller than 2 cm still escape the resolution capabilities of present-day nuclear imaging equipment^{13,14,18} and detection of a single focal lesion has been found to be unreliable.¹⁴ Initial studies using single photon emission tomography promise future better resolution; up to 52% of lesions 1.5 to 2.0 cm in diameter were detected in one comparative review.⁶⁹ Recent research in nuclear medicine has looked to the combination of hepatocyte-imaging agents and reticuloendothelial cell imaging agents in order to improve detection statistics.^{70,71} Positron-emission tomography may be used in the future to detect liver metastases by altered tumor metabolism.⁷²

One powerful argument in favor of obtaining a liver-spleen scan in a metastatic workup, regardless of the clinical setting, is the value of establishing a baseline examination and thereafter

studying serial scans for evidence of change. It is well known that the great variability in normal hepatic anatomy can make interpretation of liver scans difficult.⁷³ The accuracy of a cancer diagnosis is also affected by the age of the patient and the presence of concomitant medical illnesses.⁷⁴ In particular, alcoholic liver disease and cirrhosis make interpretation difficult.⁴

In this study, of 1,017 scans reviewed, 157 scans in 119 patients were interpreted as suspicious for metastatic disease or primary malignancy in the liver. In 136 of these scans (89%) in 100 patients (84%), tumor in the liver was confirmed. The 17 false-positive scans (10.8%) in 15 patients (12.6%) were due to cirrhosis (ten), hepatic congestion (four scans in two patients), hepatic cyst (one), abscess (one), and prominence of the porta hepatis (one). One hundred and thirty-six of these 140 scans in 100 of 104 patients had definite confirmation of hepatic tumor by some other modality. In only seven scans (5%) in six patients (6%) was liver involvement not suspected clinically prior to the scan.

Conclusion

From the scans reviewed, 95% of the liver-spleen studies diagnosed as having hepatic metastases demonstrated clinical evidence of liver involvement prior to the scan. There was a 10.8% false-positive rate.

It is obvious that the liver-spleen scan is not infallible in diagnosing liver metastases. The value of combining hepatic scintiscans with other modalities should be stressed; clinical correlation, ultrasound and computerized tomography are noninvasive methods of confirming suspicious liver scintiscan findings. In cases still in question after noninvasive evaluation, peritoneoscopy with liver biopsy under direct visualization may be necessary.

The decision to perform "routine" liver-spleen scans remains debatable. The experience at this institution has shown that the majority of symptom-free individuals with normal liver chemistries will have normal hepatic scans. Present-day limitations in the radionuclide diagnosis of hepatic defects are such that most lesions are clinically suspected once they reach a size large enough to be detected on scan. However, the variability in normal hepatic architecture and the presence of concomitant medical problems may warrant obtaining a "baseline" examination, even of a clinically normal liver, if malignant disease is known to exist in a patient.

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Unusual Cause of Acute Abdomen In the Puerperium

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Introduction

Gastrointestinal disorders during pregnancy and the puerperium often present difficult problems. Moreover, diagnosis of the acute abdomen in this period is confounded by physiologic and anatomic changes occurring during pregnancy. We present a case of postpartum enteritis due to *Yersinia enterocolitica*.

Case Presentation

A 32-year-old woman, gravida 4, para 3, had an uncomplicated prenatal course. On several consecutive days at term, she presented complaints of abdominal cramping and soreness, but each day abdominal and pelvic examinations were normal. At 41 weeks her complaints included sharp, intermittent generalized abdominal pain and a low grade fever. Her temperature was 100°F but physical examination was unchanged. A clean catch urine specimen showed numerous white blood cells. Ampicillin was begun, but two days later, when she developed continuous abdominal pain, fever, nausea, vomiting, and diarrhea, she was hospitalized.

On admission, vital signs were normal. Fundal height was 35 cm; there were no contractions. The abdomen was mildly tender, otherwise there was no sign of peritonitis. Fetal heart tones were normal, and the pelvic examination remained unremarkable. The hematocrit was 31.7% and the WBC count was 10,100/cu mm with a slight left shift. Platelet count, SMAC-20, serum amylase, and urinalysis were normal. Ultrasonography of the abdomen showed a normal gall bladder and normal extrahepatic ducts. No fluid was seen in the abdomen or pelvis.

On the fourth hospital day, with the gestation now at 42 weeks and the cervix favorable, labor was induced. Her abdomen was then minimally tender and without peritoneal signs. She delivered a viable female infant with Apgar scores of 8 and 9, and underwent postpartum sterilization through a small, infraumbilical incision. The fallopian tubes were normal on gross inspection and histologically. Thirty hours postpartum she developed diarrhea and acute abdominal pain unrelieved by analgesics. The abdomen was moderately distended and bowel sounds were decreased, and there was tenderness and voluntary guarding over the right lower quad-

rant, but no rebound tenderness. Laboratory values were unchanged. Abdominal x-rays showed mild distention of multiple small bowel loops, and minimal gas in the colon, consistent with adynamic ileus. Repeat ultrasound of the abdomen was normal.

Forty hours postpartum, the patient's temperature was 101°F, pulse 104, and blood pressure 118/72 mm Hg. Bowel sounds were absent, and there was now voluntary guarding in all quadrants and rebound tenderness in the right lower quadrant, consistent with an acute abdomen, believed to be due to a ruptured appendix. Exploratory laparotomy revealed suppurative peritonitis, predominantly in the lower right quadrant. Her appendix was normal, but there was an intense inflammatory reaction involving the right hemicolon and distal ileum, with an abscess involving mesenteric lymph nodes of the terminal ileum. A culture was positive for *Y. enterocolitica*, sensitive to tobramycin, for which she was treated with cefoxitin and tobramycin for five days and then discharged.

Discussion

Between June 11 and July 29, 1982 the largest reported outbreak of enteritis caused by *Yersinia enterocolitica* occurred in the tri-state area of Tennessee, Arkansas, and Mississippi. Epidemiologic investigation implicated milk pasteurized at a local plant as the vehicle of infection.¹

Y. enterocolitica is a Gram-negative, aerobic, facultatively anaerobic, nonspore-forming organism which is bacillary when avirulent, but coc-

TABLE 1

FREQUENCY OF SYMPTOMS ASSOCIATED WITH
YERSINIA ENTERITIS

Fever	88%
Diarrhea	73%
Abdominal pain	64%
Nausea and vomiting	46%
Upper respiratory infection	19%
Bloody stool	19%
Rash	9%
Arthralgia	6%

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cobacillary when virulent. Transmission has usually been traced to contact with infected animals or contaminated food or water.

Yersinia infection has been associated with both acute and chronic diarrhea and also a self-limiting form of mesenteric adenitis, clinically simulating appendicitis. *Yersinia* can also cause a syndrome of acute ileitis resembling regional enteritis. Numerous symptoms have been associated with *Yersinia* infections (Table 1) (Robert Rentdorff, unpublished data), symptoms similar to those frequently observed in a wide spectrum of both gynecologic and nongynecologic conditions.

As in this case, the pregnant uterus may form one wall of an abscess and thereby localize the signs and symptoms of an acute process. With uterine involution, and consequent loss of one

abscess wall, purulent material may be spilled into the peritoneal cavity, resulting in signs of peritonitis.

Conclusion

Medical and/or surgical management of these patients hinges upon consideration of the entire differential diagnosis. When considering elective sterilization in a patient with signs and symptoms suggestive of a gastrointestinal disorder, either postponing surgery until the symptoms have resolved, or operating through an incision large enough to expose the entire abdomen should be considered.

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Aspiration Pneumonitis With Tracheal Erosion and Tracheomalacia Supported With High Frequency Jet Ventilation

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High frequency ventilation is a method of mechanical ventilation that differs from conventional ventilation techniques in that greater than usual frequencies and lower than usual tidal volumes are used to effect gas exchange. A subset of high frequency ventilation known as high frequency jet ventilation (HFJV) has been shown to be highly successful in the management of distal airway disruption, e.g., bronchopleural fistula. We report the use of this ventilating technique to support a patient with a severe proximal airway disruption, tracheal erosion, and tracheomalacia, in the setting of acute aspiration pneumonitis.

Case Report

A 31-year-old white man was involved in a motor vehicle accident several hours prior to his discovery and subsequent admission. Upon arrival a subluxation/fracture of C5-C6 was discovered and subsequently reduced with Gardner-Wells tongs without improvement in his neurological deficit. A stormy clinical course ensued, with adult respiratory distress syndrome, a 70% pneumothorax, and eventual tracheostomy highlighting a 32-day period of mechanical ventilatory support.

After transfer from the intensive care unit and ten additional days of vigorous pulmonary hygiene, the tracheostomy tube was removed, but IPPB therapy as well as the patient's marginal nutritional status eventually necessitated surgical closure of the tracheostomy stoma. Some two weeks later, a persistent sore throat accompanied by choking on liquids culminated in respiratory arrest due to a massive aspiration. When attempts to orally intubate the patient were unsuccessful due to the presence of a cervical stabilization ("halo") device, digital manipulation of the tracheostomy stoma site allowed insertion of an endotracheal tube and successful resuscitation. After transfer to the intensive care unit, the endotracheal tube was replaced with a tracheostomy tube and mechanical ventilation was instituted. Chest x-ray revealed an ARDS-like pattern consistent with severe aspiration pneumonitis. The next few days required increasing levels of oxygen and positive end-expiratory pressure (PEEP) to maintain

adequate oxygenation. Six days after the respiratory arrest, the patient was noted to have significantly enlarging stoma as well as a substantial air leak during the ventilator cycles. This leak could not be sealed by increasing the volume of the cuff, and with the ventilator generating peak airway pressures of 60 to 70 cm H₂O, the tracheostomy tube on two occasions was forced up and out of the trachea, dissecting into the pre-tracheal fascia, and causing acute airway obstruction. Replacement of the tracheostomy tube with a long endotracheal tube alleviated this problem, but the continuing deterioration of the tracheal stoma required over 100 cm H₂O pressure in the endotracheal tube cuff to seal the trachea and allow delivery of an adequate tidal volume (Fig. 1).



Figure 1. Portable chest x-ray five days after respiratory arrest. Note the alveolar-interstitial infiltrate consistent with aspiration pneumonitis and the greatly overdistended endotracheal tube cuff. The cervical halo device is in place.

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Based on the continuing deterioration of the patient's trachea and increasing loss of tidal volume around the overdilated endotracheal tube cuff, the decision was made to utilize a trial of high frequency jet ventilation, which had been shown to effectively support gas exchange in major airway disruption.¹ The technique was also successfully administered without a cuffed tube in normal, anesthetized patients.² After the experimental nature of this mode of ventilation was explained to the patient and his family, informed consent was obtained, and the Healthdyne Impulse high frequency jet ventilator was interfaced with the patient. A radial artery catheter was inserted for careful blood pressure monitoring and frequent arterial blood gas samples; in addition, a Biox IIA ear oximeter was utilized to monitor O₂ saturation.

Just prior to instituting HFJV, arterial blood gases at an FIO₂ of 1.0 and 9 cm H₂O PEEP were PO₂ 127 torr, PCO₂ 57 torr, and pH 7.42. Following two days of stabilization, arterial blood gases at FIO₂ 0.5 and 9 cm H₂O PEEP on HFJV were PO₂ 89 torr, PCO₂ 53 torr, and pH 7.41. The endotracheal tube was replaced with a conventional tracheostomy tube, and the cuff pressure was lowered to 24 cm H₂O without significant leakage and loss of PEEP. Utilizing a ventilatory rate of 100 breaths per minute, inspiratory time of 30%, and FIO₂ of 0.4, the patient was weaned from ventilatory support by first decreasing PEEP to 5 cm H₂O and then decreasing the driving pressure by increments of 5 psi while the patient gradually increased his own spontaneous respirations. On the 15th day of HFJV, a fiberoptic bronchoscopy performed to assess the state of the airways revealed no damage to the trachea or major bronchi from jet ventilation. Cuff pressure over the last 10 to 12 days of HFJV was less than

16 cm H₂O, the tracheal stoma substantially decreased in size, and chest x-ray demonstrated a normal tracheal air shadow (Fig. 2).

After weaning the patient to 5 cm H₂O continuous positive airway pressure (CPAP) and FIO₂ 0.4, arterial blood gases were PO₂ 98, PCO₂ 60, and pH 7.36. Vital capacity was 850 ml and negative inspiratory force was -45 cm H₂O. A low level of HFJV was continued at night for the next eight days, after which time he was completely weaned from ventilatory support.

The patient was doing well at this point, but on the day after discontinuation of all ventilatory support, he apparently aspirated again in spite of an inflated cuff and NPO status. Increasing respiratory distress required return to HFJV, from which he was again weaned over a five-day period. A combined laryngoscopy and bronchoscopy on the fourth day showed loss of anterior tracheal rings and some pressure necrosis at the level of the tracheostomy cuff; no tracheoesophageal fistula was seen.

The patient's respiratory status remained stable after the procedure, but some 48 hours later, he developed a clinical picture of sepsis with positive blood cultures, and in spite of antibiotic and inotrope therapy, expired. No autopsy was performed.

Discussion

High frequency ventilation was first utilized in Sweden in 1972 for supporting gas exchange in patients undergoing abdominal surgery.³ In 1977, a modification on the technique was reported by Klain and Smith⁴ utilizing a percutaneous trans-tracheal catheter which they called high frequency jet ventilation (HFJV). Replacing the trans-tracheal catheter with a 14 or 18 gauge injector cannula and using rates of 60 to 200 breaths per minute at tidal volumes of 3 to 5 ml/kg, HFJV was demonstrated to be effective for gas exchange in a number of surgical patients.^{5,6} In 1981, Turnbull and others¹ reported that arterial blood gases could be at least temporarily normalized by using HFJV in patients with major airway or pulmonary disruption, in which a major portion of each tidal breath is lost through a fistula. A recent workshop on high frequency ventilation⁷ reported that in the presence of a large bronchopleural fistula, HFJV is thought to be clearly superior to conventional ventilation techniques.

Our patient had a situation similar to that of a bronchopleural or tracheoesophageal fistula. Loss of tidal volume was occurring around an incompetent endotracheal tube cuff/trachea interface due to longstanding insult to the trachea, with subsequent loss of its cartilaginous structure in the region of the cuff. The use of HFJV's rapid injection of low tidal volumes both improved gas exchange, as manifested by improving arterial blood gases, and allowed the pressure in the endotracheal or tracheostomy tube cuff to be substantially decreased, promoting the healing of



Figure 2. Portable chest x-ray 48 hours after institution of HFJV. Note the replacement of the endotracheal tube with a shorter tracheostomy tube and the significant decrease in the cuff air shadow.

HIGH FREQUENCY JET VENTILATION/Brasfield

the tracheal stoma. Minimal cuff pressure was necessary to maintain the desired level of PEEP, otherwise it is conceivable that the cuff could have been completely evacuated without adversely affecting CO₂ clearance.

Another pertinent observation in this patient was the occurrence of aspiration the day after HFJV was completely discontinued. Klain and others⁸ have reported that HFJV can prevent aspiration in dogs whose mouths have been filled with liquid while utilizing uncuffed transtracheal catheters. Once HFJV was discontinued, the liquid immediately flooded the trachea.

Other phenomena noted during the use of HFJV on this patient have been supported by previously published data. On two occasions, attempts to return the patient to conventional ventilation resulted in his expression of a preference for the small, rapid volumes of HFJV.⁹ It was also noted that suppression of spontaneous respiration occurred at or near normocarbia,¹⁰ and that HFJV could be used for an extended period of time (in this case, approximately 40 days) without significant airway damage or drying of secretions.¹

At the time of the patient's death from overwhelming infection, the tracheal stoma was healing and HFJV had provided satisfactory gas exchange. Future studies with HFJV may focus on the ability to preserve the integrity of the trachea by the use of lower endotracheal tube cuff pressures, possibly even using uncuffed tubes or a tube smaller than that required for a good seal without fear of aspiration. This may be particularly beneficial in pediatric ventilation, where the trachea is more sensitive to the effects of pres-

sure or edema. It is conceivable that such use may decrease the need for tracheostomy in the future.

Summary

We have presented a case of aspiration pneumonia accompanied by severe tracheomalacia and tracheal stomal erosion is presented. Ventilatory support in the face of extremely high cuff pressures and inspiratory pressures required with conventional equipment was accomplished with HFJV, which allowed a substantial reduction in cuff pressure and subsequent reduction in the size of the tracheal stoma. HFJV has been shown to be effective in a variety of clinical situations, particularly those in which there is major airway disruption with loss of effective tidal volume from the gas exchange zone.

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Elderly Alcoholics in a General Medicine Practice

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Introduction

The elderly constitute an increasing proportion of the practice of physicians, and elderly alcoholics will be among that population.¹ The elderly have not been studied in as great a depth as younger alcoholics, but there is evidence that problems with alcohol dependence in the elderly involve more subtle physical and psychological disturbances and more social and situational factors than among younger alcoholics.^{2,3}

Although there is evidence that the elderly drink less alcohol than younger drinkers do, significant numbers of the elderly experience difficulties related to its consumption. The identification of the elderly alcoholic may require an increased awareness on the part of the physician as to the possibility of alcohol-related problems.

Community studies of elderly alcoholics indicate that approximately 6% of the elderly are heavy drinkers, compared to up to 12% of all ages in the general population.^{4,5(p42)} An alcoholism referral center in Boston identified approximately 10% of alcohol information calls as coming from the elderly.^{5(p95)}

Materials and Methods

All patients over the age of 60 with a diagnosis of alcoholism were identified from the practice of one faculty member with an interest in

alcoholism and engaged in full-time medical practice at Vanderbilt University, located in urban Nashville. The practice population consisted of 1,693 patients of which 470 were over age 60. Of 121 alcohol-dependent patients, 18 were over age 60. Patients identified as alcohol-dependent met DSM 3 criteria for alcohol dependency with social and physical symptoms serious enough to affect their overall level of functioning. Of these elderly alcoholics, 15 had charts complete enough for the extraction of physical, behavioral, and treatment data.

Patients were classified according to their drinking patterns. Chronic drinkers drank for most of their adult lives. Reactive drinkers began drinking sometime after age 45, and identified their problem as possibly related to events associated with aging.

Physical examination data and laboratory parameters were reviewed for evidence of alcoholism. Stigmata of malnutrition, chronic liver disease, alcohol-related neurologic dysfunction, and abnormal serum chemistries, liver function tests, and hematologic parameters were noted.

Treatment plans included a combination of inpatient detoxification, Alcoholics Anonymous, and four to six weeks of inpatient supportive individual and group therapy. Evidence of sobriety was self-reported.

Results

The practice population contains 3.8% elderly alcohol-dependent patients with an age range of 61 to 81 and a mean age of 71 (Table 1). Patients came from all occupations and economic backgrounds, including secretaries and barbers to executives and judges. Many had other medical problems and were on several medications. Laboratory parameters were not helpful in identifying the alcohol-dependent patients, being abnormal only in the case of very obvious chronic liver

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disease, with elevated liver enzymes the most common finding. The chief complaint suggested alcoholism only 20% of the time, although in approximately half of the patients physical examination revealed stigmata of chronic alcohol dependency. Approximately three-fourths of the patients had a chronic drinking pattern (Table 2). There was little difference between chronic and reactive drinkers with respect to chief complaint, physical signs of alcoholism, or abstinence. Reactive drinkers, however, were more likely to reside with another family member, although this was not statistically significant. Sixty percent of the women alcoholics and 10% of the men in our sample were reactive drinkers.

The treatment responses were gratifying. With a follow-up period ranging from less than three months to 12 years (mean 4.6 years) 73% of the

patients were abstaining from alcohol. It is interesting to note that many of the patients who have continued in Alcoholics Anonymous have found this to be a very important source of socialization and contact outside the home.

Several representative case histories are illustrative of our experience.

Case Reports

Case 1. Mr. Z is 77 years old. His family was very concerned about his constant drinking and belligerent behavior. On one occasion, while vacationing in Florida, he was found walking on the beach in his underwear, pounding on the doors of other cottages on the beach, angrily demanding to see his family. Continued drinking, severe hypertension, and increasing hepatomegaly made hospitalization necessary. An intervention was arranged with his wife, two daughters and brother, who confronted him with his bizarre behavior while intoxicated. The patient agreed to go to a midwestern inpatient treatment facility but did not participate enthusiastically

TABLE 1
ELDERLY ALCOHOLIC PATIENTS

Case	Age*	Sex	Residence With Family Member	Presenting Complaint	Drinking Pattern†	Physical Stigmata	Therapy	Follow-Up Period	Abstinence‡
1	62	M	Yes	Cellulitis	Chronic		AA§	5 yrs	Yes
2	64	F	Yes	Alcoholism	Reactive		Inpatient Detox, AA	<3 mos	No
3	75	M	No	Abdominal Pain	Chronic	Cirrhosis	Nursing Home	12 yrs	Yes
4	69	M	Yes	Toxic Ingestion	Chronic		Inpatient Detox, AA	3 yrs	Yes
5	73	M	No	Hypertension	Chronic	Enlarged Liver	Inpatient Detox, AA	10 yrs	Yes
6	71	M	No	Arrhythmia	Chronic		Inpatient Detox, AA	2 yrs	Yes
7	81	M	Yes	Skeletal Pain	Chronic	Enlarged Liver		<3 mos	No
8	75	F	Yes	Alcoholism	Chronic		Inpatient Detox, AA	4 yrs	Yes
9	77	F	Yes	Falling Spells	Reactive		AA	11 yrs	Yes
10	61	M	Yes	Alcoholism	Chronic	GI Bleeding Fatty Liver		<3 mos	No
11	76	M	No	Seizures	Reactive	Cirrhosis	Inpatient Detox, AA	4 yrs	Yes
12	69	M	Yes	Abdominal Pain	Chronic	GI Bleeding Cirrhosis	AA	2 yrs	Yes
13	68	F	Yes	Depression	Reactive	Enlarged Liver	AA	5 yrs	Yes
14	72	F	No	Edema	Chronic	Fatty Liver	AA	10 yrs	No
15	70	M	No	Emphysema	Chronic		AA	1 yr	Yes

* Age at time of most recent follow-up.

† Chronic defined as most of adult life.

Reactive defined as possibly related to life events identified by patient.

‡ Abstinence at time of most recent follow-up.

§ Alcoholics Anonymous.

TABLE 2

ELDERLY ALCOHOLICS—CHRONIC VS REACTIVE DRINKING PATTERNS IN 15 PATIENTS

	Chronic (%)	Reactive (%)	All (%)
Drinking Pattern	73		26
Chief Complaint Alcoholism	18	25	20
Physical Stigmata of Alcoholism	55	50	53
Residence with Family Members	55	75	60
Abstinence	72	75	73

in the program, making a second treatment program and Antabuse treatment necessary. After this rehabilitation effort, he joined Alcoholics Anonymous, and remains on Antabuse by his own choice. He says that "it's good protection against that hell I was in." He remains abstinent and normotensive.

Case 2. Mrs. G is age 72. She married a college classmate who became very successful in the financial affairs of her city. She began drinking large quantities of whiskey at home, resulting in frequent automobile accidents in her neighborhood, but the police did not jail her because of her social position. When she was confronted with her behavior she agreed to go to an inpatient rehabilitation program, but left the rehabilitation center before her treatment was completed and immediately began drinking again. A second more extensive program of rehabilitation for alcoholism was completed in a western state. She has continued to have small slips in which she drinks and falls. Driving accidents have yet to recur.

Case 3. Mrs. Q is 79 years old. Her husband, a prominent judge, who retired from the bench and remained at home tending roses as a hobby, found his wife fallen in the rose bushes reeking of Scotch whiskey. Embarrassed, he brought her for a physical examination. A detailed history revealed frequent falls related to daily drinking of Scotch whiskey. Liver enzymes were mildly abnormal. Both the patient and her husband agreed to attend Alcoholics Anonymous and Al-Anon meetings close to their home. She has remained sober and both are very active in Alcoholics Anonymous and Al-Anon.

Case 4. Mr. H, age 71, was admitted to a coronary care unit with severe ventricular arrhythmia. Liver enzymes were abnormal and alcoholism was suspected. It was determined that this man drank large quantities of beer, and when his apartment was examined, it was found filled with empty beer cans. When confronted with his alcoholism the patient agreed to go into an inpatient rehabilitation unit, where he actively participated in the program and joined Alcoholics Anonymous; his ventricular arrhythmia was easily controlled with digoxin and quinidine once abstinence was achieved. He is now actively participating in Alcoholics Anonymous and remains abstinent.

Case 5. Mr. D is 76. At retirement and after a divorce, he began mixing vodka with his morning orange juice as he looked at the morning television programs. He also began to associate with drinking friends, although his usual friendships were in the local Rotary Club and church group. After consuming large quantities of vodka for months and becoming bedridden he was admitted to the hospital for detoxification and treatment. After confinement to bed for six to eight weeks then gradually using a walker, then a cane, this patient was sent to an inpatient rehabilitation unit. He benefited from the program and returned home to his church activities and Rotary Club meetings. Associations once again with his previous drinking friends led to a relapse, and he was again admitted to the hospital seriously ill. Once again, his program of abstinence was instituted with regular attendance at Alcoholics Anonymous meetings. He is doing well currently.

Discussion

Alcoholism in the elderly is of particularly grave concern, since elderly individuals appear to be more sensitive to alcohol because of higher peak levels of alcohol with less lean body mass and volume of distribution.⁶ This suggests that even social drinking may cause them special problems.⁷ The potential serious interaction of alcohol with multiple prescribed drugs is also a common potential hazard in elderly patients.^{8,9}

Although the characteristics of older alcoholics vary according to the population studied, two particular subsets of elderly alcoholics have been described. The first includes the chronically alcohol-dependent person who drinks into old age, the so-called alcoholic who grows old. The second is the subset of reactive drinkers, defined as those whose drinking is precipitated by life stresses associated with aging, such as retirement, loss of spouse, and physical decline.¹⁰⁻¹³ The chronic alcoholic is exemplified in case vignettes number 1, 2, 4, and the reactive alcoholic by cases 3 and 5. Our sample showed that one-third of elderly alcoholics have a reactive pattern to their drinking. It is notable that patients whose alcohol dependence is of relatively late onset, after 45 years of age, are indeed more likely to live with their family, have more social affiliations, a more positive work history, and fewer personality problems.¹⁴ We cannot explain the higher proportion of reactive women alcoholics in our series.

Although approximately 16% to 39% of all alcohol-dependent patients abstain after treatment,¹⁵⁻¹⁷ others have found that elderly alcoholics have a remarkable tendency for improvement with treatment.¹⁸ Our successful experience may be partially attributed to their predominantly middle class background and the special interest of the faculty internist in the subject of alcoholism. Premorbid social stability is also an important contribution to sustained abstinence,¹⁷ with

those of greater stability enjoying longer abstinence.

It is imperative that physicians be aware of and suspect the possible diagnosis of alcohol dependence in elderly patients, even though they do not often report alcohol abuse. The numbers of elderly alcoholics will undoubtedly grow with the increased age of the population. Health hazards associated with excess alcohol intake, particularly noncardiovascular diseases and excess mortality¹⁹⁻²¹ have a much greater impact on elderly populations. Since treating the elderly alcoholic patient can produce gratifying results, it behooves physicians to identify and treat their elderly alcohol-dependent patients.

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EKG of the Month

W. BARTON CAMPBELL, M.D.

A 60-year-old woman was admitted to St. Thomas Hospital for evaluation of confusion and leukocytosis. A previous cerebral vascular accident had resulted in left hemiparesis. She had a history of diabetes mellitus and had bilateral renal calculi. At the time of admission her white blood cell count was 42,000/cu mm and there were 15 to 20 white cells/hpf in the urine. The patient's potassium was 3.7 mEq/liter, and she was slightly azotemic with a BUN of 32 mg/dl. She had a history of congestive failure and had been given diuretics prior to admission but edema persisted. An admission electrocardiogram was obtained (Fig. 1).

Following admission she was treated with Claforan, Declomycin and Tobramycin and placed on sliding scale insulin, Lasix, and potassium 20 mEq daily. The potassium was eventually increased to 40 mEq orally twice daily, Lasix was increased to 80 mEq orally twice daily, and Bumex 2 mg IV every 12 hours was added. One week following admission frequent PVCs were noted, for which therapy with Procan SR 500 mg orally every six hours was begun. Her fever disappeared and her white count became normal. The electrocardiogram was repeated (Fig. 2) and a 24-hour Holter scan (Figs. 3 and 4) showed dysrhythmias.

Two days later she suddenly had a cardiac arrest. A stat potassium was 2.8 mEq/liter, serum magnesium was 1.2 mEq/liter, and the pH was 7.24 with a PCO_2 of 61 torr. Following correction of acidosis and hypokalemia, she continued to have recurrent ventricular fibrillation and eventually could not be resuscitated.

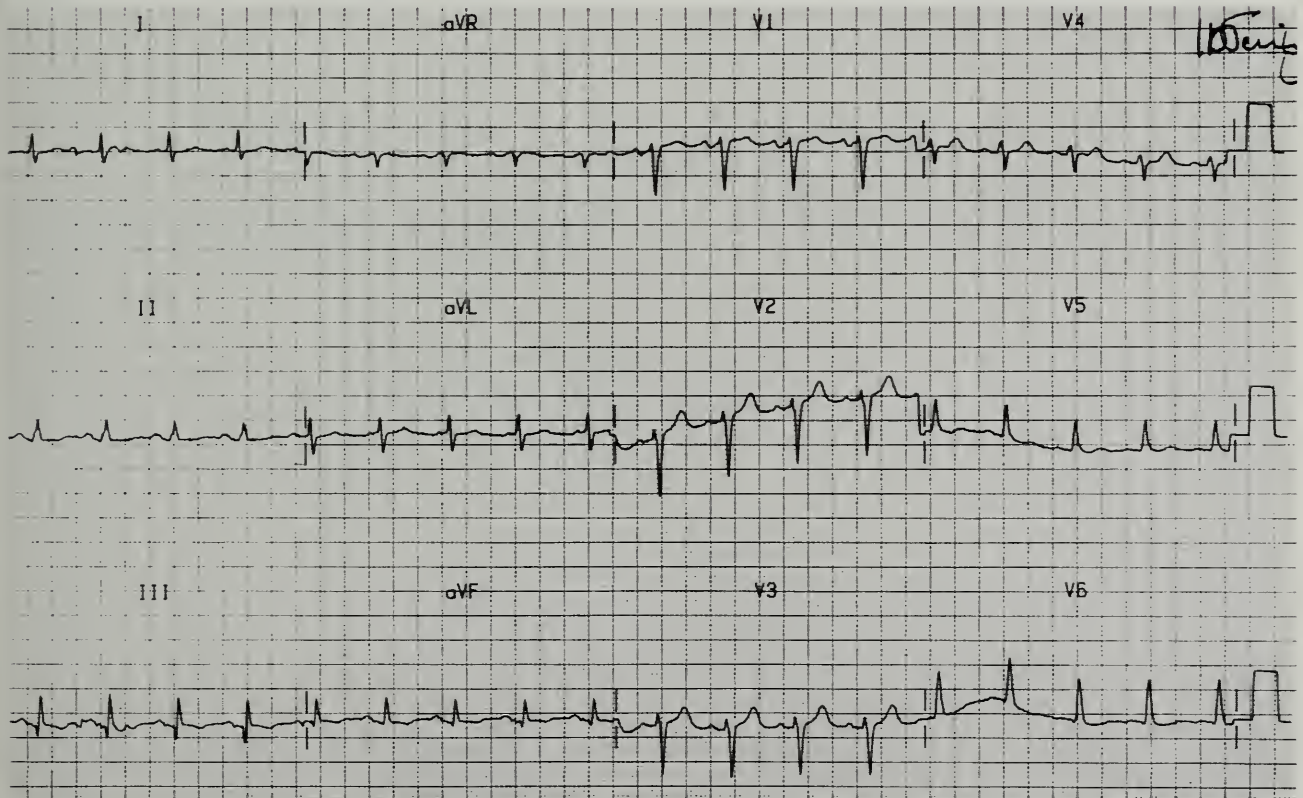


Figure 1

Discussion

This series of electrocardiograms illustrates a common pattern in patients who have cardiac disease and dysrhythmias. The admission electrocardiogram (Fig. 1) shows mild sinus tachycardia at a rate of 106/min. There is intra-atrial conduction delay with broad P waves in II, III, aVF and terminally inverted P waves in V₁. Non-specific ST-T wave changes are present. The QT interval (measured in lead aVL) is 0.32 seconds. The QT_c is 0.43 seconds (upper normal limit of QT_c is 0.44 seconds).¹ The patient was given diuretics, potassium supplementation, and, after premature ventricular contractions were noted, procainamide.

The repeat electrocardiogram (obtained eight days later) shows persistent tachycardia. There is a nonspecific repolarization change with the T vector now oriented rightward and inferiorly (upright in II, III, aVF and inverted in I and aVL). There is increase in the QT interval to 0.42 seconds. The QT_c at this heart rate of 100/min is 0.54 seconds.

The Holter scan obtained at this time shows

frequent episodes of ventricular ectopy. There are runs of wide complex tachycardia (Fig. 3) which have the same morphology as premature ventricular beats and represent ventricular tachycardia. Many of these episodes of tachycardia are quite uniform in QRS morphology (Fig. 3). On the same tracing are other episodes of ventricular tachycardia that disclose a typical pattern of "torsades de pointes"² (Fig. 4).

The nomenclature of ventricular tachycardia has been confusing. Some groups reserve the label "torsades de pointes" for only those patients who have QT prolongation³ while others recognize the typical pattern of torsades de pointes in patients with normal QT intervals.⁴ The arrhythmia has also been referred to as "atypical ventricular tachycardia,"⁵ "polymorphous ventricular tachycardia,"⁶ "paroxysmal ventricular fibrillation,"⁷ and "transient ventricular fibrillation."⁸

As observed by Smith and Gallagher,⁹ patients who do not have QT_c prolongation may on occasion respond to administration of class I antiarrhythmic agents (e.g., procainamide, quini-

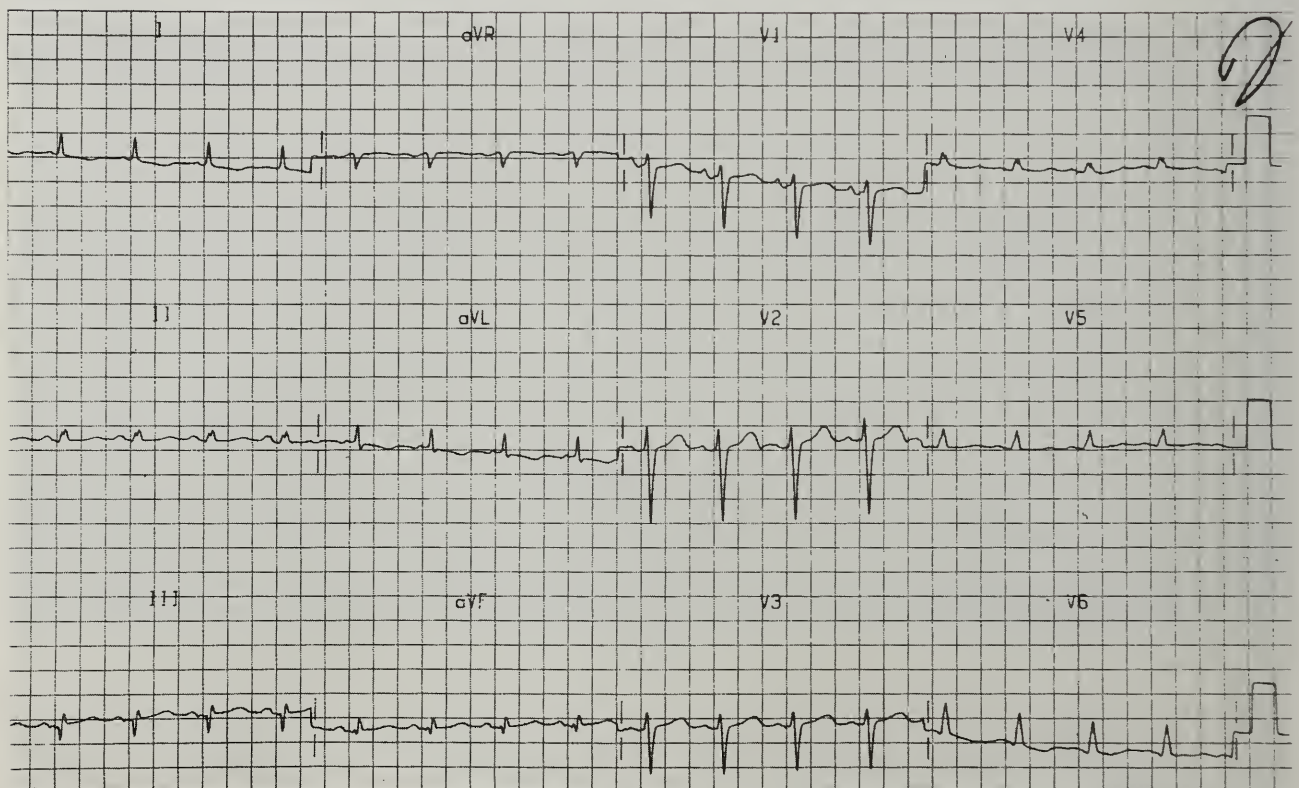


Figure 2

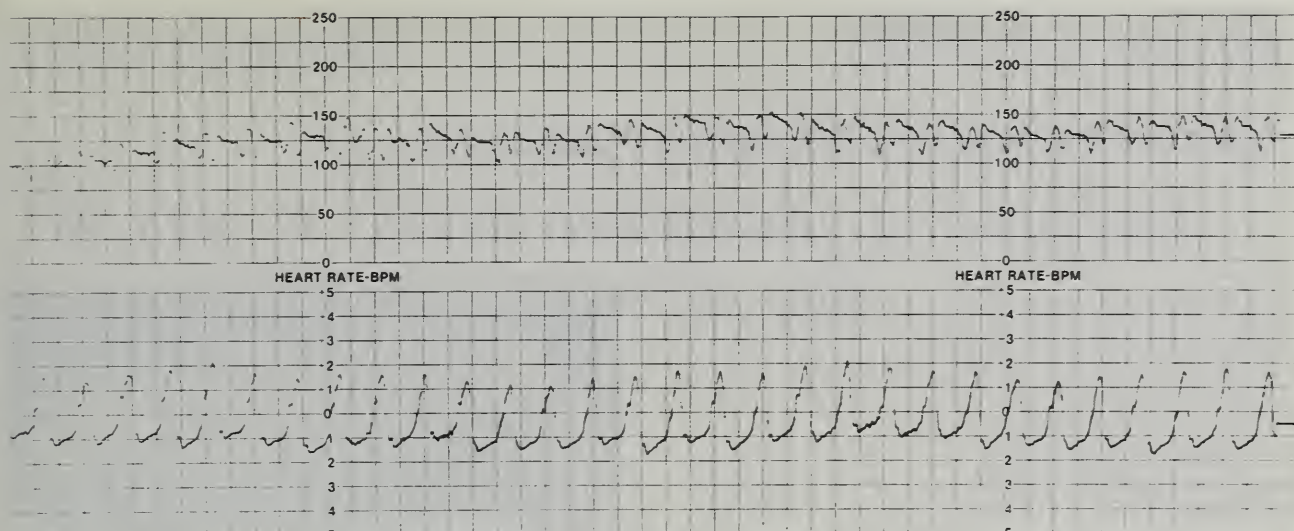


Figure 3

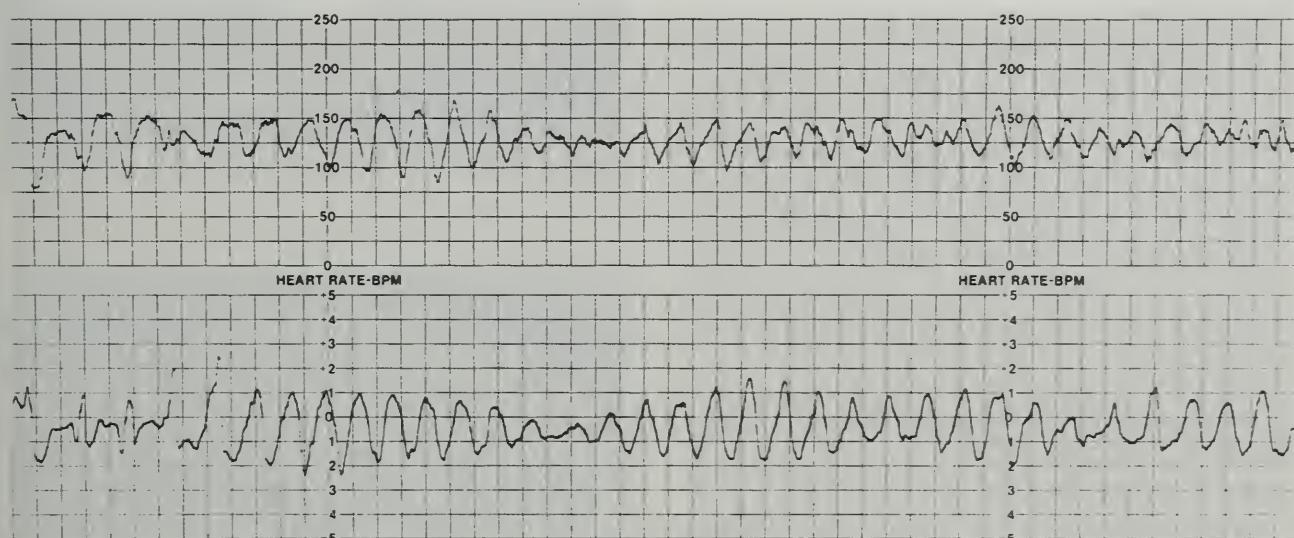


Figure 4

dine or disopyramide), whereas class I agents appear to be a precipitating factor in a large number of patients—especially in the presence of QT_c prolongations. Morphology of the tachycardia may vary—as exemplified by these electrocardiograms (Figs. 3 and 4) and many authors prefer the term “delayed repolarization syndrome” for these arrhythmias when QT_c prolongation is present.^{10,11} In this patient, in spite of potassium repletion, discontinuation of the type I antiarrhythmic drugs, and atrial pacing, the dysrhythmias ultimately proved fatal.

QT_c prolongation with ventricular ectopy should suggest correction of any hypokalemia or hypomagnesemia, avoidance of type I antiarrhythmic drugs, and avoidance of bradycardia. Occasional patients, however, may have a fatal outcome regardless of correction of these factors.

IMPRESSION: (1) Torsades de pointes; (2) QT_c prolongation in presence of hypokalemia, hypomagnesemia, and procainamide therapy.

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CAT Scan of the Month

JAMES H. MONTGOMERY, M.D. and STEPHEN L. GAMMILL, M.D.

An 18-year-old white man with a two-week history of malaise, now presents himself with fever, a normal chest roentgenogram, and this CAT scan.

Please examine Figs. 1 and 2 and choose the best diagnosis:

- (1) Metastatic seminoma
- (2) Systemic candidiasis
- (3) Adult polycystic disease
- (4) Malaria
- (5) Coumadin toxicity.

Discussion

This patient had been treated for acute myelocytic leukemia and had achieved a complete remission 18 months previously. Two weeks prior to this scan, his white blood cell count began to rise and many immature forms were seen on his smear. All the findings are compatible with recrudescence acute leukemia complicated by candidiasis. The patient died a few days after the CAT scan with overwhelming fungemia and septic shock.

Candida is the most common opportunistic mycosis in the world.¹ Predisposing factors facilitating this systemic infection include the administration of steroids, chemotherapeutic agents, total parenteral nutrition, broad spectrum antibiotics, neutropenia, impaired cellular immunity, and mucosal colonization.^{2,3} The organism may be transmitted from person to person (e.g., from mother to fetus during delivery, between sexual partners, by the hands of medical personnel to patients, and through intravenous solutions).¹

Although the organism may invade any organ, the most frequent sites of dissemination are bone or soft tissue, the eye, the kidney, and skin. Endophthalmitis may be seen as raised white patches on the retina, usually in the macular area. *Candida* directly invades renal tubules, first surviving in the urine then causing widespread abscesses and papillary necrosis that may obstruct the ureter by either sloughing papillae or forming a fungus ball. This progresses to renal insufficiency, pain, and dysuria (personal communication from S. Ekkelkamp, M.D.). A critical question to be answered is whether *Candida* dis-

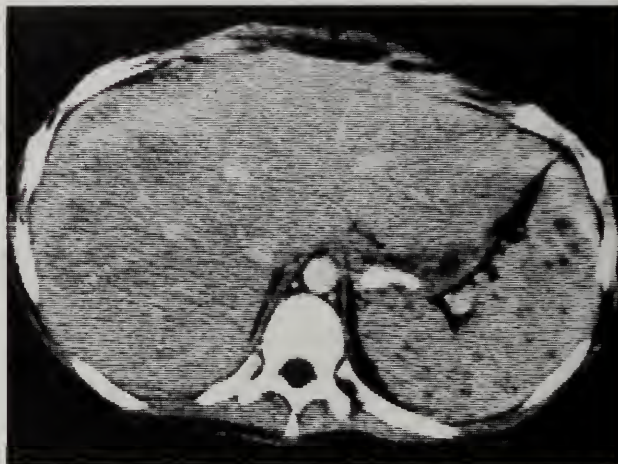


Figure 1. Multiple lucent filling defects may be seen in the liver and spleen.

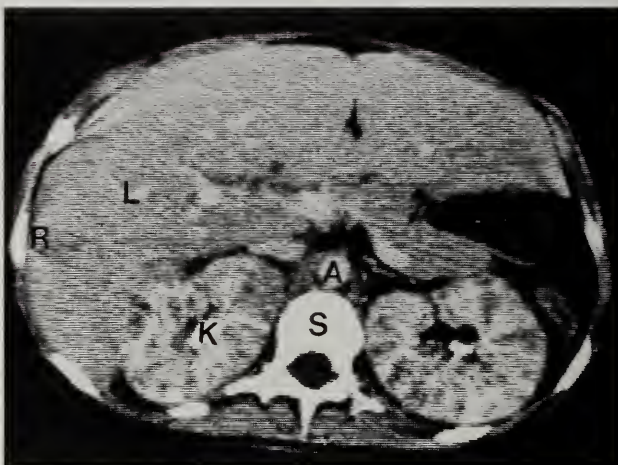


Figure 2. A cut 4 cm caudal to Figure 1 shows multiple lucent filling defects in the kidneys (K). (A = aorta, K = kidney, L = liver, R = right, S = spine)

covered in urine represents a benign infection resulting from prolonged catheterization, or invasive pyelonephritis with or without abscess.

Diagnosis of superficial infections may be made by wet potassium hydroxide preparation, Gram stain, or culture. The most reliable evidence of systemic candidiasis, however, is the demonstration of the organism invading tissue in a histologic specimen. Positive blood cultures or cultures from catheter tips do not necessarily establish the diagnosis of systemic candidiasis. Fungemia may

(Continued on page 408)

From the Department of Radiology, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146.

The Role of Patient Assessment in Placement, Level of Care Determination, and Discharge Planning

CARL E. ADAMS, M.D., and JUDY W. POWELL, R.N., M.A.

Especially in long-term care, it is important to care for the patient in the most appropriate setting with the correct type and amount of staffing and services, as well as to continually keep the individual at the highest level of self-care and independent functioning. For these reasons, placement, level of care determinations, and discharge planning require continual vigilance. Also, appropriate placement and correct level of care determinations will assist in overall cost containment and improved care with better patient outcome. Proper discharge planning will assure that satisfactory provisions are made for continuity of care following discharge and will keep unnecessary care to a minimum.

Placement

Prior to 1975, alternatives to nursing home care were few and could be identified only in the occasional community. Since then there has been a progressive increase in available options to nursing home care, and increasing use is being made of these alternatives.

In 1975 criteria and guidelines for placement were established, describing as available options home, home with assistance, supervised boarding home or day care (or home with regular assistance), intermediate care facility (ICF) low level, ICF high level (with more than usual staff), skilled nursing facility (SNF), chronic hospital/high level SNF, and acute general hospital/psychiatric hospital. These were used extensively in Rochester, N.Y., and in other areas of the United

States, and have been found to be reliable and effective in practice. A summary of the placement criteria and guidelines is found in the Appendix.

The items needed for decision making in placement are readily available from a functional patient assessment that includes patient status (stable, unstable, deteriorating, critical, etc.), functioning status as to ambulation, activities of daily living (ADL), bladder and bowel, mental and behavioral levels and discharge potential with availability of social support systems, physician services, special care, rehabilitative services, and other special services, such as licensed nursing.

Depending on existing circumstances in several of the placement designations, more than one option is listed. Usually the choice will depend on the availability of resources. It should be kept in mind that nearly any patient can be taken care of at home if there are enough resources, including physical facilities, equipment, time, money, people and desire.

Home health and homemaker (aid) services offer beneficial support when needed and have been much more available in the past five to eight years than before.

Level of Care Determinations

Although not originally designed as such, the changing interpretations of the criteria for Medicare approval for skilled care has become an effective cost control mechanism. In some states, including Tennessee, Medicaid skilled care has been in large part piggybacked on the Medicare program.

Skilled Care: The criteria for skilled care as published in the *Federal Register* in September,

From the TMA Long-Term Health Care Committee, Dr. Carl E. Adams, chairman. Mrs. Powell is patient care coordinator and director of the Patient Assessment Program for National Health Corporation, Murfreesboro, Tenn.

TABLE 1

CONDITIONS AND SERVICES REQUIRING NURSING STAFF TIME,
WITH AMOUNT AND TYPE OF TIME REQUIRED

Service	Total Minutes
Dispense Meds and Chart*	30
Skilled Observation and Assessment and/or Vital Signs Evaluation*	15
Bathing, Assist and/or Grooming, Assist	18
Bathing, Total	20
Dressing, Assist or Total	30
Walk/Wheel, Assist or Total	32
Eating/Feed, Assist	20
Eating/Feed, Total	45
Tube Feeding*	90
Catheter, Indwelling	20
Incontinence	48
Bowel Incontinence with Catheter	18
Bladder Training*	50
Bowel Training*	18
Turn/Position	36
Special Skin Care	10
Special Nursing Treatment*	each 10†
Restorative Nursing (Range of Motion, Meal Training, ADL Training, Heat Treatment, Ambulation)*	30

* Licensed Time.

† At this point, add 10% if special attention is required (disoriented, inappropriate behavior, threatening, contracted or obese).

1975, includes overall management and evaluation of care plan, observation and assessment of the patient's changing condition, skilled behavior observation (when patient is in a special unit for mental conditions), patient education services, IV, tube feeding, multiple injections (except vitamins, iron, insulin and B₁₂ unless diagnosis of pernicious anemia), suctioning, special catheter care, special ostomy care, sterile dressings, decubitus care, tracheostomy care, oxygen therapy, drug regulation, isolation, vital signs, physical therapy, occupational therapy, speech therapy, and rehabilitative nursing.

Personal care and maintenance services do not qualify for skilled care.

A reliable algorithm for determining skilled care is a need for:

- Three hours (180 minutes) or more of total nursing time per 24 hours.
- Any one of the specific skilled services listed above.
- Fifty minutes or more of licensed nursing time per 24 hours.
- Unstable, deteriorating, critical, or terminal medical status requiring 2¾ hours (165 minutes) or more of nursing time per 24 hours.

In long-term institutional care a major component is the type and amount of personnel needed to give proper care. Since those giving the patient care represent about 60% of the cost of operation of the facility, it is important that it be monitored and adjustments be made in a timely manner. Also, the third party payors are concerned that the costs be appropriate in relation to the charges.

Through studies and monitoring, those conditions and services requiring nursing staff time, and the amount and type of time (licensed or unlicensed) needed, has been determined (Table 1).

The patient conditions, the specific skilled services, and the items for time measurements with licensed and unlicensed type of care can all be obtained from the information supplied by completion of a functional patient assessment that includes the items mentioned for placement.

Intermediate Care: This is a level of patient care that does not qualify for skilled care and is more than that specified for personal care. An absence of adequate support systems might qualify for intermediate care an individual who otherwise would not be eligible.

Personal Care (Home for the Aged): These persons should be able to ambulate (walk or wheel) to the dining room (many homes for the aged do not accept wheelchair confined individuals), should be capable of self-care with minimal assistance, should have four or fewer problems requiring assistance only (no major problems), and should require no more than 1½ hours of nursing care per 24 hours.

Discharge: A candidate for discharge should have two or fewer problems (excluding all patients with a mental or mental retarded diagnosis), and have available indicated support systems.

APPENDIX

CRITERIA AND GUIDELINES FOR PLACEMENT

Home Alone—Medically stable, mentally alert; self-care.

Home With Assistance or Semi-Independent Apartment—Medically stable, ambulatory, minimal assistance with personal care, household duties, shopping, and finances.

Supervised Boarding Home (Home for the Aged), Day Care or Home With Regular Daily Assistance—Medically stable, ambulatory, assistance with ADL, minimally confused, needs some supervision but can manage own medications; may need

(Continued on page 408)

Legal Traps in Breast Disease

J. KELLEY AVERY, M.D.

Case Report

During routine self breast examination, 26-year-old Mrs. Gray (divorced with two small children) noticed a lump. After some procrastination, she made an appointment to see her obstetrician/gynecologist, Dr. Black. During this examination on Jan. 10, 1983, a 2-cm nodule was found at the 3 o'clock position. He also noticed some "cystic mastitis" areas around the nodule. Mrs. Gray was sent for a mammogram which was performed the next morning. When the written report returned indicating fibrocystic disease of the breast, Dr. Black phoned her informing her the mammogram was negative for cancer, she had a diffuse disease in the breast which might be caused by prolonged breast feeding, and to return after her next period for a recheck of the breast mass (the phone call was documented, but the instructions to return were not included; Mrs. Gray later denied having received the instructions to return for recheck). Mrs. Gray did not return.

During the next several months, Mrs. Gray noticed the mass continued to increase in size, but did not immediately return to the doctor due to her poor financial situation. Her family finally convinced her to seek a second opinion. She scheduled an appointment with another gynecologist, Dr. White, who saw her within two weeks. By this time, it had been six months since the first examination. Dr. White saw her July 14, 1983 with complaints of a breast mass present for six months and that had been steadily increasing in size. His examination showed a solitary mass now 4 cm × 2 cm at 3 o'clock position. On palpation, the mass was believed to be cystic, tender, mobile and unattached to surrounding tissue. There were several 0.5-cm nodules also noted in the same area. Dr. White obtained a phone re-

port of the January mammogram, and based on his examination and the report, diagnosed fibrocystic disease and recommended she decrease her caffeine intake by excluding coffee, tea, chocolate, and colas to see if the size of the mass decreased. If the mass did not decrease she would need a breast biopsy.

One month later, Aug. 16, 1983, Mrs. Gray returned to Dr. White with complaints of heavy and painful periods. No breast examination was conducted on this visit. Dr. White did ask if she had decreased her caffeine intake which she indicated she had been unable to do. She was then instructed to return after her next period for recheck of the breast. This instruction was documented in the record and Mrs. Gray later denied the instruction.

Two weeks later, Mrs. Gray became alarmed at the steady increase in size of the mass and decided to see a surgeon for biopsy. The biopsy proved the lesion to be an infiltrating intraductal carcinoma. A radical mastectomy was performed and all 18 lymph nodes were positive for metastasis. The cancer spread to her spine despite aggressive chemotherapy, and she ultimately died of the disease.

Loss Prevention Comments

Dr. Black's phone call to Mrs. Gray following the mammogram showing "cystic mastitis," should have been documented in his record along with his instructions to return for follow-up examination after her next menstrual period. Had specific instructions to return been documented, in all probability Dr. Black could not have been successfully charged with negligence.

Some six months later, Dr. White saw Mrs. Gray and was given a history of a mass in the breast said to be increasing in size. Dr. White obtained a report of the January mammogram and elected to advise the patient on a dietary

Dr. Avery is the medical director of State Volunteer Mutual Insurance Company.

management for fibrocystic disease. With an enlarging mass in the breast of six months' duration, Dr. White's appropriate management would have been to refer the patient to the surgeon for his opinion and his surgical intervention if the surgeon felt that appropriate. This assumes, of course, that Dr. White does not do breast surgery. Although the exclusion of caffeine from the diet for a period of one month might possibly be defended even in the case of an enlarging breast mass, again there was no documentation in the record proving that the patient was definitely instructed to return in one month for reevaluation.

When a physician who does not do breast sur-

gery finds a mass in the breast of a patient and elects to order a mammogram, he should probably also elect to involve in the care of a patient, a surgeon who could be responsible for definitive surgical treatment if that became necessary.

The mammogram is an excellent test, but it does have definite limitations. These limitations should be communicated to the patient, who should not be told she definitely does not have cancer, based solely on a mammogram. The scenario above is all too frequent. Even when the mammogram does not show any evidence of malignant disease, an enlarging mass in the breast deserves biopsy.

CAT Scan of the Month . . .

(Continued from page 404)

clear spontaneously with the removal of the intravascular focus of infection.¹ Skin testing is not helpful in diagnosing candidiasis because a positive skin test is seen in nearly all normal people. Rising titers of candida antibodies are usually compatible with dissemination.¹

Therapy should be with intravenous amphotericin B after potential sources of infection (e.g., catheters) are removed. Dosage is highly variable ranging from a total dose of 4 mg/kg to 20 mg/kg, given in daily doses.¹⁻⁵

ANSWER: Disseminated (systemic) candidiasis.

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Patient Assessment . . .

(Continued from page 406)

limited rehabilitation services. (Limited supervised boarding home availability in Tennessee.)

ICF-Low Level or Home With Help and Supervision—Medically stable, ambulatory within dwelling, help with ADL; not more than minimally confused; needs part-time supervision, help with medications; needs rehabilitation services, nursing plan, social plan, or therapeutic diet.

ICF-High Level (With More Than Usual Staff) or Home With 24-Hour Help—Medically stable or with predictable changes; needs help with ambulation and ADL; frequently incontinent, not more than moderately confused; needs regular physician visits, nursing plan, social plan. (Low-level and high-level are variations of use in some states, and have different designations in different areas.)

SNF or Home with 24-Hour Help—Medically stable or with predictable changes; needs administration of medicines with skilled observation of their effects or total assistance with ADL; confused, requiring 24-hour supervision, or always incontinent or needs daily rehabilitation, regular and extra physician visits, nursing supervision 24-hour basis, social plan.

High Level SNF or Chronic Hospital (In areas where utilized, may be included in SNF)—Medically unstable, or needs extensive rehabilitation or requires specialized care, physician available, nursing 24-hour care and supervision, social plan.

Acute General Hospital/Psychiatric Hospital—Acutely ill or disabled, or able to benefit from diagnostic or therapeutic services beyond those possible on ambulatory basis (includes mental or behavioral), full physician and hospital services.

Tennessee's Healthy Children Initiative

FREDIA S. WADLEY, M.D.

Many physicians across the state have been actively involved in Governor Lamar Alexander's four-year Healthy Children Initiative. Some are members of the statewide Healthy Children Task Force chaired by Honey Alexander, while others are serving on one of the Task Force's subcommittees, on a local Healthy Children Advisory Committee, or as a pediatric consultant to one of the ten regions of the state.

In this era of rapid technological advances we often have difficulty believing that preventable health problems exist for a significant number of our children; however, indicators are available which suggest that improvements are needed in many areas:

- Almost 13% of the babies born in 1982 weighed 5.5 lb or less.
- Over 900 infants die each year before their first birthday.
- 83% of the deaths of children under 6 years of age occur during the first year of life. Many of these deaths are preventable with good prenatal care.
- 27.5% of pregnant women do not receive prenatal care during the first trimester.
- 35% of the deaths of children between 1 and 5 years of age are caused by car accidents, poisonings, or drownings.
- Almost one-half of Tennessee's 24 month olds are not properly immunized.
- An estimated 30% of children do not have an established provider for medical care.

The major thrust of this initiative is prevention. We are striving not only for primary prevention but also for early identification and appropriate intervention for existing health problems to minimize complications. Our strategy for prevention will be to establish, strengthen, and reinforce networks of public and private resources across the state. The Department of Health and Environment has been designated the lead agency, but this is an interdepartmental initiative as well as a joint public and private health

care improvement endeavor.

Although there are over 20 objectives for the Healthy Children Initiative relating to personal health care, lifestyle and behavior, social issues, and environmental problems, this year we have concentrated on improving our prenatal program; next year (1984-85) will be devoted to establishing "medical homes" for children and providing infant follow-up services to certain groups of infants who are at high risk for health problems. The regional pediatric consultants are working with the health departments to identify private physicians in the area who are interested in accepting additional children into their practices. Some physicians prefer to provide both total health care and supervision in their offices, whereas others are electing to provide only acute medical care, with the health department providing the routine preventive services. Since the success of the initiative requires that the Department be committed to working with private physicians in an effort to supplement and not duplicate services, these two approaches, as well as other variations, are being jointly adopted across the state. We are anxious to get all children into a system of health care.

Hays Mitchell, M.D., of Cleveland, chairman of the Medical Home Subcommittee of the Healthy Children Task Force, and Luthur Beazley, M.D., of Nashville, chairman of the Tennessee Chapter of the American Academy of Pediatrics, have devoted a great deal of energy to the medical home component of the initiative.

You will be hearing more about the Healthy Children Initiative over the next few years, and I feel sure you will like what you hear about infant follow-up, genetic services, school health endeavors, and accident prevention. The Healthy Children Initiative has brought the public and private health providers together to provide a health care environment that will allow more Tennessee children to grow up to become healthy, happy, productive adults. "Children are our most precious resource—don't take their health for granted."

From the Tennessee Department of Health and Environment, Nashville. Dr. Wadley is the Department's chief medical officer.

World Medical Association

General Background

The AMA, a founding member of the World Medical Association in 1947, resigned from the organization in 1974. Renewal of AMA membership in 1979 was accomplished when WMA accepted four basic principles established by the AMA Board of Trustees.

The AMA continues to provide leadership to the Association in cooperation with other national medical associations. These member associations are joined together to work for the implementation of this purpose:

To achieve the highest international standards in medical education, medical science, medical art, medical ethics and health care for all people of the world.

To qualify for membership, national medical associations must be nongovernmental associations of physicians. The WMA is a private, professional organization that provides a democratic forum for the discussion and solution of international health problems, and from its deliberations have come world-renowned declarations to guide physicians and the public in matters of medical ethics. Further, the WMA gives members the opportunity to study alternative models of health care systems. By studying the pros and cons of various systems, member associations may be able to avoid the pitfalls and emulate the successes of others.

The AMA has received accolades from American ambassadors with whom delegations have met while attending WMA meetings. Each ambassador has confirmed the importance of the AMA's role in supporting efforts to provide quality health care for all people in the world. In addition, the ambassadors have underscored the contribution the AMA is making to building better international understanding by sharing the expertise of the American physician with other countries.

WMA Organizational Structure

The WMA structure provides for a Council whose members are selected on the basis of both proportional and regional representation. The Council is comparable to a board of trustees. The World Medical Assembly, which is comparable to a house of delegates, was meeting biennially but will meet annually beginning in 1984.

Of the present 12 Council seats, the AMA holds four. The following physicians serve from the AMA: Joseph F. Boyle, M.D.; John J. Coury, Jr., M.D.; William Y. Rial, M.D.; and James H. Sammons, M.D.

In addition, Dr. Rial serves as the chairman of the Medical Ethics Committee and Dr. Sammons heads the Finance and Planning Committee. These four Council

members, along with Frank J. Jirka, Jr., M.D., and William S. Hotchkiss, M.D., served as delegates to the October 1983 World Medical Assembly held in Venice. The Italian Medical Association host committee, in cooperation with the WMA, organized the Scientific Session on "The Physician and Medical Ethics." Dr. Rial and Dr. Boyle participated in the program, and Dr. Jirka addressed the Joint Meeting of Medical Editors and National Secretaries/Officials.

The WMA delegates were privileged to have an audience with the Pope. The AMA delegation attended, with Dr. Jirka as the official AMA representative.

WMA Activities

Medical Ethics

The WMA has been the voice of physicians worldwide in the shaping of international codes of medical ethics. Medical ethics will continue to command its attention as change generates new issues and creates the need to modify existing declarations and codes. These declarations and codes have been widely promulgated and serve as guidelines for national medical associations and governments throughout the world.

The international community has long recognized the preeminence of the WMA in the field of medical ethics. For example: In December 1982, the United Nations adopted the *UN Principles of Medical Ethics*. The principles are based on the WMA Declaration of Tokyo (guidelines for medical doctors concerning torture and other cruel, inhuman or degrading treatment or punishment in relation to detention and imprisonment).

The AMA took the lead within the WMA to develop a strategy to secure adoption of the final UN draft document which most closely adhered to the principles embodied in the WMA Declaration of Tokyo. WMA national medical associations were requested to contact leaders in the Departments of Health and Foreign Affairs of their countries. The department leaders were asked to see that their country's delegates to the UN supported that draft. The AMA served as the WMA's nongovernmental organization representative at the UN, and in that capacity worked to achieve the successful adoption of the document in the waning days of the 1982 UN General Assembly.

The AMA is a key force within the WMA to implement necessary revisions in the WMA's policy statements and to create a process for systematic review of existing documents and the development of new declarations.

The WMA Council considered a number of documents at its May 1983 meeting. After discussions and some modification, the declarations were approved by the Council with a recommendation for adoption by the 35th World Medical Assembly in October 1983. At

This is AMA Board of Trustees Report Y, submitted to the House of Delegates at its Interim Meeting in December 1983.

this Assembly, the delegates adopted two new documents on the subject of boxing and terminal illness, and revised existing major declarations were adopted as amended or referred back to the Medical Ethics Committee:

Declaration of Sydney (Determination of Death)	Adopted
Twelve Principles of Provision of Health Care	Adopted
Declaration of Sao Paulo (Pollution)	Referred
Resolution on Computers in Medicine	Adopted
Declaration of Helsinki (Biomedical Research Involving Human Subjects)	Adopted
Family Planning	Adopted
Regulations in Time of Armed Conflict	Adopted
Medical Care in Rural Areas	Adopted
Declaration of Oslo (Therapeutic Abortion)	Adopted
International Code of Medical Ethics	Adopted
Use and Abuse of Psychotropic Drugs	Adopted

The AMA has introduced a proposed Declaration on Child Abuse to the Medical Ethics Committee, and this document will be considered at the spring 1984 meeting of WMA.

CME Program

In October 1982, the WMA Medical Education Committee cooperated with the Hawaiian Medical Association (HMA) in cosponsoring the continuing medical education program at the HMA 126th Annual Meeting in Honolulu. In addition to a full-scale CME program, special WMA programs were (1) Evaluation of Methods of Continuing Medical Education. (2) Two discussion sessions on the subject of "Evaluation of Methods of Continuing Medical Education." (3) "Current Concepts in Leprosy." (4) WMA/HMA panel on "Health Care Manpower" in Australia, India and Brazil. (5) Grand Rounds in hospitals in Honolulu.

International Health Program

At its February 1983 meeting, the AMA Board of Trustees directed the AMA delegation to recommend to the WMA that it develop and implement an international health program to be entitled "Declaration for Infant Health." The objective of the program is to urge countries to establish standard goals to help infants achieve good health. It was developed in consultation with the Centers for Disease Control.

The AMA delegation presented the program to the WMA Council at its May meeting. It was approved subject to financing, either from WMA resources and/or from foundations and international bodies interested in maternal and child health.

Health Promotion and Disease Prevention Program

The WMA Council has approved a program, Health Promotion and the Prevention of Disease, submitted by the AMA. Under the program, the WMA is surveying member associations on their health promotion and disease prevention programs, based on the 15 priority criteria established by the U.S. surgeon general.

Upon completion of the survey, a report will be prepared for use by WMA member associations and other relevant organizations. In its proposal, the AMA recommended the WMA member associations utilize the 15 priority criteria to establish their own goals in their countries.

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THOMAS K. BALLARD

Our Image

Our image as physicians has become somewhat tarnished within the last few decades. Popularity polls show a decline from our number one position, which we held for a long period of time. I have been concerned about the image that we project as physicians, both in our practice and in our community life. We have only ourselves to blame for this predicament.

On the cover of the *Saturday Evening Post* in the 1930s, artist Norman Rockwell portrayed a kindly physician sitting in a living room taking the pulse of a doll being held by a beautiful child approximately six years of age. The older physician is portrayed with a scarf around his neck and rubber overshoes on his feet. However, before examining the child he is examining the doll who has a handkerchief tied around her chin. In taking the time to examine the doll before the child he shows concern for the doll and therefore gains a rapport with his patient. This picture was given to me some 20 years ago and hangs in my office. Of all the pictures scattered throughout my office, this one draws the most comment from my patients. They seem pleased when they look at the picture, and hardly a day goes by that someone doesn't comment about it to me.

I think that we need to reflect on what this picture portrays to the patient.

To me it portrays three things: caring, concern, and communication.

In our everyday life and busy practice we must show that we do care for our patients, for their well-being, and for the problems which they present to us in many different ways. In portraying an attitude of caring we will find that we can make inroads into our patients' medical problems, and will be able to better deal with their emotional and their physical ailments.

By showing our concern we will be able to establish rapport with our patients that is most important in these days and times. However, there are pitfalls in showing concern. We can be overly concerned and thereby instill into our patients a sense of despair and they will respond to that concern.

Communication even between physicians is a distinct problem. The lack of communication among physicians, their patients, and the patients' families is one of the most serious weaknesses that I find in the practice of medicine. Taking time to communicate with our patients the nature of their illness, the nature of their treatment, and the hopeful outcome of their treatment is certainly time-consuming. We all are busy; however, it is most important that the time be taken with all patients to properly communicate with them, and instill the desire to recover from their illnesses. Communication with patients in regard to their personal health problems is most important, and communication with patients in recommending lifestyles suited to individual patients is equally important. Patient education is a part of our practice in which we all probably fall short.

Our footprints follow us wherever we go, whether it be in our office, on hospital rounds, in the emergency room, in our church life, or in our community activities. These footprints are always there. What type of footprint do you leave?

Thomas K. Ballard MD



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Thomas K. Ballard MD

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JULY, 1984

editorials

Signs of the Times

Something around 25 years ago before an assemblage that numbered most of academic pathology's best and brightest, a young (relatively) pathologist who had just been appointed director of one of the nation's foremost research institutes commented that if his wife had a breast tumor, he would not want a pathologist like him doing the frozen section, but instead one who did frozen sections every day. His remark caused a furor at the time, but in fact it presaged the trend in medicine over the past quarter of a century that resulted from the information and technology

explosion following World War II. As with most developments, it has produced both good news and bad news.

Technology has advanced so rapidly that the profession has had difficulty in assimilating it, leading not only to further fragmentation of fields such as radiology and pathology, but also to extensive subspecialization in every area of medicine. While technology has presented medicine with almost unlimited diagnostic powers, it has also not infrequently had the effect of causing practitioners to put their brains in neutral, coasting toward a diagnosis with mindless inattention to clinical detail and slavish obeisance to laboratory reports. It has endowed physicians with an almost cavalier boldness in areas in which their clinical acumen is often marginal. Two such procedures that come to mind are the Pap smear and the mammogram.

Every pathologist who deals in cytology knows that there are tissue changes that may produce false-negative smears in the face of a significant clinical lesion, most frequently invasive carcinoma. At the same time, such lesions are visible, and no gynecologist would think of doing a Pap smear on such a patient. He would immediately biopsy the lesion. And yet, all cytology laboratories continue to receive questions from physicians as to why the Pap smear was negative on their patient when she has such a bad looking cervix. The "worst scenario," of course, is the situation, unfortunately not unknown, in which the result is not questioned.

If the human body and its parts always reacted to stimuli in the expected logical fashion, medicine would be at least, if not easy, a lot less complex. Though breast cancer, and even premalignant breast changes, deflect x-rays in characteristic ways, producing shadows that the radiologist can interpret as likely being due to cancer, and even though the breast cancer screening projects of the past decade have indicated that these changes have a relatively high level of both specificity and sensitivity, changes viewed by the radiologist as suspicious are sometimes found on biopsy not to be due to cancer. In the same way, cancers sometimes refuse, even while producing a clinically apparent lesion, to behave for mammography in the expected way. Such a case is presented this month by Dr. Avery in our Loss Prevention article. The situation is unfortunately not uncommon.

To return to the comment of my pathologist friend: since he was speaking to his fellow pathologists, he stopped short of making the full statement. That statement would say not only that he

would send his wife to a pathologist whose primary duty is surgical pathology, but also that he would send her to a surgeon, and not just any surgeon, but one who works on breasts every day.

Everything I have said above must of course bow to some extent to pragmatism. Although except in the largest hospitals few pathologists confine their work to surgical pathology, the dictum that it should be an everyday and not a sometime activity is generally accepted. In the same way, to have exclusively "breast doctors" is not only impractical but unnecessary (though it may one day come to that—and essentially has in Sweden). Nevertheless, only a surgeon who frequently deals with breast lesions—the more the better—can keep his acumen sufficiently tuned to allow him to weigh all the evidence for making a decision as to which lesions need surgery and which can be safely followed.

I saw a sign once in a restaurant that said, "We have a deal with the bank: They don't sell pizza, and we don't cash checks." In the present scheme of things, which includes both complexity in medicine and a litigious society, very few surgeons would consider following diabetics, hypertensives, or pregnant women. If each cobbler would stick to his own last, not only would their patients be better served, but a desirable side effect might be that SVMIC could lower your premiums.

J.B.T.

SPQR

Except for a brief partial respite between about four and six o'clock each morning, the Porta Pinciana, a breach created in the crumbling Aurelian Wall of ancient Rome to allow entry to the Villa Borghese, disgorges into the Via Vittorio Veneto a smoking, screeching, roaring mass of autos, trucks, buses, motorcycles, mopeds, and even horse drawn vehicles with a cacophony that at times is well nigh unbearable. Great quanta of this din pelt our eardrums through windows open to the spring night air as we try to sleep in our room that overlooks this bedlam from the Grand Hotel Flora, favored but now aging grandee of generations of American travelers to Rome. Fumes cast a pall over the Villa Borghese Gardens behind the gate, and stain the hotel's ochre front and the pink facade of the Palazzo Margherita, now the American Embassy, down the street. The fumes are slowly doing to ancient

monuments what millennia of weather, quakes, and Huns never accomplished.

Farther on down the hill, dominating the Piazza Venezia, stands the King Victor Emmanuel monument, an imposing, even overwhelming, bric-a-brac erected at the expense of a host of ancient edifices to commemorate the first king of unified Italy. It is left behind and forgotten on climbing the Capitoline Hill behind it, now covered by Michelangelo's imposing Campodoglio, itself built of marble quarried from the face of the Colosseum and other ancient structures; were it not for the silting of the ages it is doubtful that anything would have survived from those golden days of the Eternal City. Until reclamation activities began in the early part of the last century, those monuments were fair game, and such seventeenth century poets as Keats and Byron reveled in the bucolic atmosphere of plains where cattle grazed among the projecting tops of nearly buried arches and pillars.

From the Campodoglio one views to the left the Forum Romanum, now thoroughly excavated and well maintained; there one can tread the pavement in the steps of such orators as Cicero and Cato. Only fragments of pillars and statuary remain, although much of the House of the Vestals and its statuary is preserved intact. Above it on the Palatine other imposing excavations intermix with the Renaissance finery of the Farnese Palace and gardens. Thus, the first impression of Rome—decay, noise, air pollution, utterly chaotic traffic, and ancient ruins. That is not Rome.

It is cool and sometimes rainy, but mostly the sun shines on huge azaleas that blaze in pots along the streets, pots changed whenever the blossoms begin to fall. They transform the legendary Spanish Steps into a multicolored cascade of white, salmon, pink, and red. Pansies and nasturtiums blossom in beds throughout parks and piazzas, and the Court of the Vestals encompasses a magnificent rose garden whose perfume hangs heavy on the air. At every turn, the sunlight plays sprightly tunes on gushing fountains, and though eroded and crumbling, the Fontana di Trevi justifies all the tales of its grandeur. Even though the fountain's basin is cleaned each Monday, by Saturday the three coins have already multiplied hundreds of times over, and we dutifully add our own to the burden.

While the changing of the guard at the Quirinal Palace on Sunday afternoon scarcely rivals that at Buckingham in magnificence, it is nevertheless a colorful affair, and after appropriate

ruffles and flourishes the excellent marching band favors us with a fine concert; a popular selection with the crowd, some but by no means the majority of whom are Americano, is *Anchors Aweigh*. A horse show has been in progress in the Villa Borghese Gardens through the week, and at its close later on in the long Sunday afternoon another concert by a full orchestra floods the great woods and meadows with continental favorites, mostly selections from Viennese operettas and Verdi operas.

Romans, as nearly all Italians, lunch from 12:30 to 3:00, and dine from 7:30 or 8:00 to very late, and since even in early May the sun does not set until nearly 8:30, they indulge in long afternoon strolls through parks and piazzas on into the early evening, enjoying the cool breezes—it is hot in summer—and taking in the fragrances and the music of orchestras large and small and of the bells of the thousand-odd churches that grace the city.

Saint Peter's Square and its magnificent basilica—largest in the world—defy description. Michelangelo, standing in the lovely Duomo in Florence, then the largest but now third after St. Peter's and St. Paul's in London, is said to have murmured, "I go to Rome to build your sister—bigger, but no more lovely." His Sistine Chapel adjacent is a small masterpiece, and works by Raphael and other masters in the Vatican museum make this small city-state, aside from its religious significance, one of the real wonders of the world. Rome is a marvel of color, sound, and artistic majesty, but this also is not Rome.

Though violent crime is rare, bands of boys are said to roam the city streets in pairs on mopeds, one driving and the other scooping up the purses of unwary pedestrians on the sidewalks. Picking pockets has been developed into an art and science, and I was shocked to find my own being rifled by three small waifs, all girls, the oldest maybe nine or ten and the other two perhaps six or seven. That they got nothing was not due to their lack of dexterity but to my prudence in not carrying anything in my pockets.

It would be easy to call to mind the decaying architecture, the pickpockets, the noisy bedroom, and the crowded streets, with bedlam at intersections and piazzas—things not totally unknown to one's favorite city in the United States. I shall remember, though, the man who walked with me for two blocks out of his way to point me down a narrow street to the Trevi Fountain, because neither his English nor my Italian were

quite adequate to the situation. I'll remember the opulent dowager on her way from church who questioned half a dozen people in her attempt to help us locate a secluded restaurant. Though we did not always communicate successfully, never in our five days in Rome did we ever receive a short answer or any sign of unwillingness to be helpful. Though we found this generally true in Italy (and in fact almost everywhere we have visited), Rome seemed special.

The Grand Hotel Flora may not be quite so grand as *the* Grand Hotel, or as its neighbor the Excelsior, not even as grand as it was itself in its halcyon days, but it is still grand; its beds are good and its linen crisp and spotless. We shall remember best, though, the maid and porter, always cheerfully helpful, and the outstanding concierge, who after the first day always had our room key in hand even before we reached his desk; though this was indeed a part of his job, we found such attentiveness unusual by today's standards, a hold-over from a gentler, less hurried time.

The piazzas and ancient monuments are overrun with groups of happy school children, held gently but firmly in tow by usually placid teachers who were often nuns or priests, come to view their heritage. We remember those many to whom the urchins on the Spanish Steps were the unfortunate exception. As we lunched in the cafeteria at the Vatican Museum, one side of which was open to a courtyard, members of a group of boisterous youngsters picnicking outside waved merrily to my wife and me with an occasional "Ciao." We observed what others have commented on, and the masters depicted, that Italian children are uncommonly beautiful.

The crowd that lined the streets and filled the piazza to enjoy the parade at the Quirinal on Sunday afternoon contained, to be sure, some of us outlanders, but mostly they were Italians come to admire their boys (most of them just that) in uniform, and to enthusiastically cheer their flag as it passed. Though the civilization is ancient almost beyond imagining for us youngsters on the world stage, as a nation Italy is the newcomer, the various states having been unified only in 1866. Mussolini swept away the hovels that filled the piazzas in the early years of this century, and began the work of uncovering and restoring; "SPQR" (Senatus Populusque Romanus—the Senate and the people of Rome) reappeared—on signposts, banners, and manhole covers—reminding the inhabitant of the city that with the Caesars they are Romans. They are proud to be

Romans. They are also proud to be Italian, evoking the saying that the fortunate are born Italian; all the others are born something else.

There you have the Rome I remember best. Like every locality, Rome is its people. Ancient wisdom has it that so long as the Colosseum stands, Rome will last, and when Rome falls, so will the world. Though Renaissance builders did their utmost to ensure its demise by removing its massive marble facade, recent restorative efforts seem to have ensured continued existence for that colossal structure.

I find no reason to discount the ancient prophecy. Modern weaponry can quickly reduce both Colosseum and Eternal City to rubble—and with it the world. So also perhaps, given time, can air and water pollution. One way or another, mankind seems bent on its own destruction. But until then, Viva Roma!

J.B.T.



Jackson Philip Lowe, age 70. Died May 14, 1984. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

Ernest H. Mathis, age 41. Died May 16, 1984. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY

Michael P. Gallagher, M.D., Maryville
Alan Lee Smuckler, M.D., Maryville

CAMPBELL COUNTY MEDICAL SOCIETY

Lora Marie Abell, M.D., LaFollette

COFFEE COUNTY MEDICAL SOCIETY

Brahm D. Sethi, M.D., Manchester
Chander M. Sethi, M.D., Manchester

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

David N. Jones, M.D., Jackson

DICKSON COUNTY MEDICAL SOCIETY

Jan M. Gorzny, M.D., Dickson

KNOXVILLE ACADEMY OF MEDICINE

Marek M. Pienkowski, M.D., Knoxville
Stephen A. Russell, M.D., Knoxville
Nanji M. Shekhat, M.D., Knoxville
Steven C. Weissfeld, M.D., Knoxville

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

John M. Barron, M.D., Memphis
Allen D. Berry, III, M.D., Memphis
Barry Boston, M.D., Memphis
Ernest L. Britton, M.D., Memphis
Joseph DeWane, M.D., Memphis
Victor A. Follarin, M.D., Memphis
Tommy S. Fowler, M.D., Memphis
Raymond E. Glotzbach, M.D., Memphis
Rachael Ann Hays, M.D., Memphis
Michael D. Hellman, M.D., Memphis
Randall L. Holcomb, M.D., Memphis
Edwin M. Holt, M.D., Memphis
James W. Johnson, M.D., Memphis
George M. Jones, M.D., Memphis
Ann T. Keifer, M.D., Memphis
Diane M. Long, M.D., Memphis
H. Benjamin Maddux, M.D., Memphis
Harold M. McSwain, M.D., Memphis
Frank D. Parks, M.D., Memphis
Thomas H. Pratt, M.D., Memphis
Larry K. Roberts, M.D., Memphis
Frederick D. Sanders, M.D., Memphis
John F. Schwerkoske, M.D., Memphis
Harold Sexton, M.D., Memphis
Andrea L. Smith, M.D., Memphis
Judy Spencer, M.D., Memphis
Prasad R. Sudha, M.D., Memphis
William B. Swafford, Jr., M.D., Memphis
William B. Thomsen, M.D., Memphis
Robert L. Wingate, Jr., M.D., Memphis
Robert R. Yarbrough, M.D., Memphis

(Student)

Thomas R. Rimer, Memphis

NASHVILLE ACADEMY OF MEDICINE

Saul A. Juliao, M.D., Nashville

personal news

James E. Chapman, M.D., Oak Ridge, has been elected to membership in the Society for Clinical Vascular Surgery.

Paul J. Marsidi, M.D., Union City, has received Board certification in pediatric and adult urology.

John E. Wilkison, M.D., Springfield, was honored with the Springfield Rotary Club's Paul Harris Fellow of the Rotary Foundation award.

TMA Members Receive AMA Physician's Recognition Award

Fifty-four TMA members qualified for the AMA Physician's Recognition Award during April 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Earl Baines, M.D., Erwin
H. Brian Balfour, M.D., Nashville
Marvin R. Batchelor, M.D., Cleveland
Robert R. Bendt, M.D., Nashville
Sidney W. Bondurant, M.D., Nashville
James W. Bryant, M.D., Memphis
Alex G. Carabia, M.D., Oak Ridge
F. Hammond Cole, Jr., M.D., Memphis
Paul S. Crane, M.D., Nashville
Diane W. Crocker, M.D., Memphis
David R. Daugherty, M.D., Memphis
Walter E. Derryberry, M.D., Cookeville
Mark L. Donnell, M.D., Madison
John H. Dougherty, M.D., Fairfield Glade
James W. Felch, M.D., Franklin
Gail H. Gallemore, M.D., Johnson City
Perry F. Harris, M.D., Nashville
William P. Hutcherson, M.D., Chattanooga
Wesley F. Jones, Jr., M.D., Lexington
James B. Kelley, M.D., Columbia
Eugene R. Kidwell, Jr., M.D., Kingsport
Wayne Y. Kim, M.D., Chattanooga
R. Bruce Koefoot, Jr., M.D., Knoxville
John W. Lamb, M.D., Nashville
Frederick D. Lansford, Jr., M.D., Chattanooga
William E. Long, M.D., Memphis
James J. Madden, Jr., M.D., Nashville

G. Patrick Maxwell, M.D., Nashville
Ben R. Mayes, M.D., Nashville
Herbert T. McCall, M.D., Madison
James R. McFerrin, M.D., Nashville
Charles E. McKay, III, M.D., Nashville
Michael M. Miller, M.D., Knoxville
Don G. Mills, M.D., Chattanooga
William H. Murray, M.D., Pulaski
William A. Nelson, Jr., M.D., Knoxville
Denis M. O'Day, M.D., Nashville
Peter A. Oliva, M.D., Johnson City
Leslie B. Reynolds, Jr., M.D., Kingsport
Samuel S. Riven, M.D., Nashville
Allen L. Schlamp, M.D., Jackson
Grover F. Schleifer, III, M.D., Union City
Jeno I. Sebes, M.D., Memphis
James O. Shaw, M.D., Union City
Ronald S. Smith, M.D., Kingsport
Russell R. Smith, M.D., Madison
Steven A. Smith, M.D., Chattanooga
Brian R. Swenson, M.D., Nashville
Helen L. B. Tepley, M.D., Chattanooga
Lloyd R. Thomas, Jr., M.D., Memphis
Steven M. Thomas, M.D., Chattanooga
Robert B. Whittle, M.D., Knoxville
James H. Williams, M.D., Milan
Claude H. Workman, Jr., M.D., Memphis

national news

From the AMA's Office in Washington, D.C.

PRO Bids Rejected for Many States

Operation of a new Medicare review system has suffered yet another delay in 15 states where all the bids for the peer review organization (PRO) contracts have been rejected as "technically unacceptable."

The rejected states have about 40% of all Medicare hospitalizations. New bidders there, along with the 18 rejected organizations, now have until July 5, to submit proposals. The rejected organizations met with Health Care Financing Administration officials May 30-31 to learn the specific deficiencies in their bids.

In two states—California and Michigan—multiple

bids were submitted and rejected, according to HCFA spokesmen. In the other 13 states, only one bid was submitted. They are Alaska, Connecticut, Hawaii, Idaho, Illinois, Maine, Ohio, Oklahoma, Pennsylvania, Texas, Vermont, Virginia and Washington.

Bidding for 47 PRO areas closed April 27 and HCFA officials say they did receive at least one bid from each of these areas. Bid requests were issued later and remain open until June 12 for three territories and for four states (Massachusetts, Maryland, New Jersey, and New York) with Medicare waivers. With the bid rejections in 15 areas, the bidding is now completed in 32 states and open in 19 states and the territories.

In issuing the notice of reopened bids, HCFA noted that if it finds "no proposal acceptable" in the 15 areas, it will be "required to award a contract to a payer organization for that area." Officials in charge of implementing PROs say if it becomes necessary to use fiscal intermediaries for review, the bids will not be reopened. Rather the new duties will simply be added to existing intermediary contracts.

These officials added, however, that they "still feel very strongly that PROs should be run by physician-

sponsored organizations” and are “giving the physician community every opportunity to participate.”

Observers say, however, that the HCFA staff had hoped for greater competition for the PRO contracts and now wants to encourage competition from stronger out-of-state bidders for contracts in the 15 states.

Inadequacies in the 18 rejected bids reportedly fell into three categories: the contractual arrangements with subcontractors were either inadequate or involved too many subcontractors; the data base used by the bidder was seen as inappropriate; or the objective setting was ruled deficient.

Following the HCFA debriefing, AMPRA will sponsor a meeting at which the South Carolina and Wisconsin PSROs, which reportedly submitted the strongest PRO bids, will discuss their techniques. The AMA has also offered its assistance to the organizations that are resubmitting proposals. Most of the organizations say they will definitely bid again though some are not certain.

Redefining Physician for the Government

An AMA-backed bill regarding the definition of physician under Medicare law has been introduced by Mississippi Democrat Wayne Dowdy.

The definition, used to delineate the types of practitioners and services Medicare pays for, has been applied in other contexts as well—including Medicare’s proposed conditions of participation for hospitals.

Through the years, as Congress expanded Medicare benefits by broadening the physician definition, the definition has grown to include dentists, podiatrists, chiropractors, and optometrists, in addition to doctors of medicine and osteopathy. Under Rep. Dowdy’s bill, only doctors of medicine and osteopathy would be defined as physicians. Medicare coverage for the services of the other practitioners would be unchanged, but these practitioners would be defined separately. Dentists would be defined as dentists; podiatrists, chiropractors and optometrists as “independently licensed health care practitioners.”

Shorter Stays Under DRGs?

Medicare’s new diagnosis related groups (DRGs) payments are having the desired effect of reducing hospital lengths of stay without the unwanted side effect of increasing admissions, federal officials are reporting.

Data on the impact of the DRG program to date were presented to the Healthcare Financial Management Association May 5 by James Scott, Acting Deputy Administrator of the Health Care Financing Administration.

As of March 31, 43% of all hospitals were under DRGs for Medicare patients. The most prevalent DRG was 127 for heart failure and shock; the second most prevalent was DRG 39 for lens procedures.

Between Oct. 1, 1983 (when DRGs were implemented in the first hospitals) and March 31, 1984, the average length of stay for Medicare patients billed under DRGs was 7.2 days. This compared with 9.1 days for non-DRG bills and 9.4 days in the same period a year earlier, Scott said.

The 7.2 day average may rise somewhat, however, because bills for complicated, long stays may only now be filtering in for payment and because many of the hospitals first affected by DRGs were in the South, where length of stay tends to be shorter than in the Northeast.

In the first five months of fiscal 1984, an estimated 4.826 million Medicare patients were admitted to hospitals as compared to 4.792 million in the same period in 1983, Scott advised. When adjusted for leap year, this is a 0% increase in a year when admissions were projected to increase by 3.4%, he added, “so it is safe to conclude” that hospitals are not “jerk[ing] every third senior citizen they see on a street corner off to the hospital to maximize DRG payments.”

Stopping the ‘Hoppers’

Physicians and other practitioners who lose their license in one state should not be permitted to hop from state to state, continuing to treat patients and collecting from Medicare and Medicaid in the process. That was the general agreement among physicians, federal officials and congressmen reacting to a General Accounting Office study that recommends tightening Medicare and Medicaid laws to permit the exclusion from the two programs of any practitioner whose license has been removed by a state licensing board.

GAO reviewed the proposal at a May hearing of the Senate Special Committee on Aging where all witnesses—including the Inspector General of the Department of Health and Human Services and a representative of the American Medical Association—supported the proposal’s concept.

HHS Inspector General Richard Kusserow said his office is drawing up legislation to expand HHS’ authority against sanctioned providers. AMA Board of Trustees member John J. Ring, M.D., reported that the AMA is expanding its dissemination to medical licensure boards of license revocation notices received for the AMA Physician Masterfile.

Others suggested remedies such as requiring states to report disciplinary actions to a national clearinghouse or denying controlled substances permits to physicians who are disciplined by licensure boards or who leave a jurisdiction while an investigation is pending.

The GAO based its recommendation on a study that traced health practitioners whose licenses were revoked in Michigan, Pennsylvania or Ohio between 1977 and 1982. Of the 328 sanctioned practitioners (which included osteopaths, pharmacists, podiatrists, chiropractors, and dentists in addition to 144 physicians), 58% had lost their license due to quality of care problems such as malpractice, alcohol and drug abuse, or immoral conduct. Twenty-three percent involved drug law violations.

A little more than a third of the practitioners held a license in at least one other state and 39 of these (including 24 physicians) enrolled in Medicare and Medicaid in another state.

OMB vs HCFA: Battle Lines Drawn

A long-brewing battle between the Health Care Financing Administration and the Office of Management and Budget has prompted HCFA head Carolyn Davis to charge that OMB is "usurping" her agency's authority over Medicare waivers and demonstrations.

The waivers and demonstrations permit Medicare to participate in state hospital rate-setting programs and other payment experiments. Medicare law gives authority to grant waivers to the Department of Health and Human Services where it is Davis' agency which makes the initial decision to award or deny a waiver.

For the past two years, however, OMB has used various tactics—including denial of the necessary forms for evaluating demonstrations—to hold up demonstrations. Since January, the Budget Office has required HCFA to submit for its approval any waiver applications involving more than \$1 million a year.

HCFA protests resulted in an interim agreement in which OMB has 30 days to reach a decision on Medicaid research waivers, 10 days for policy waivers such as home and community based services, and 90 days for program waivers. Davis regards the OMB role as "fundamentally inappropriate," however, and in a memo to OMB early in May she accused the Budget Office of "usurpation of HCFA's role."

The most obvious casualty to date has been an HCFA-approved experiment with social HMOs that OMB has held up with various demands for analysis. Still to come is the major battle involving waivers from Medicare's new prospective pricing system for state rate-setting programs. The PPS law requires HHS to exempt from the federal plan state programs that meet certain criteria, including the expectation that they will not cost more than the federal system.

Regulations to implement the PPS waivers have not yet been issued, however, despite repeated congressional inquiries. Critics charge that the waiver authority is being held hostage in the battle between HCFA and OMB, and they claim that the administration wants to deny PPS waivers to any states other than the four that already have them.

Medicare Budget Bills Ready for Conference

Senate approval of a deficit reduction bill and a fiscal 1985 budget resolution in May have cleared the way for a House-Senate conference and final action on the measures.

Among the provisions to be taken up in conference is a Senate-endorsed physician fee freeze. The propos-

al would freeze Medicare's customary and prevailing fee limits for all physicians for one year. Prevailing fee limits would remain frozen for a second year for those physicians who don't agree to take all claims on assignment.

The final Senate measure claims Medicare savings of \$8.2 billion over the next four years. In addition to the fee freeze, calculated to save \$1.5 billion over four years, the measure would increase Part B premiums to save around \$2 billion and curtail Medicare hospital payments to save \$1 billion.

In the House bill, Medicare savings would be \$833 million over the next three years. The House rejected a freeze and mandatory assignment on physician services to hospital inpatients. The House measure also does not include the continued freeze on prevailing fees for physicians who don't take assignments, reduced payments to hospital or increased beneficiary cost-sharing.

Both the House and Senate measures set up fee schedules for payments to clinical laboratories and call for a study of pacemaker reimbursement. The House plan would move up to July 1985 the date by which the Department of Health and Human Services must report on the "advisability and feasibility" of a diagnosis related group payment system for physicians.

Medicare Goes HMO

Nearly two years after enactment of a law setting up a prospective payment option for Medicare HMO enrollees, the regulations to implement the law have been released by the Department of Health and Human Services. The new plan will cost the federal government nearly \$100 million in its early years but long-range savings are expected.

The proposed regulations, which reportedly were delayed due to Office of Management and Budget cost concerns, were outlined at an HHS press conference May 22 and will be issued in final form this fall.

Under the proposal, HMOs, preferred provider organizations (PPOs) and other alternative delivery arrangements would have the option to continue under the cost-based arrangements most HMOs now have with Medicare; or they could move to a prospectively determined, capitated payment.

Under prospective payment, Medicare would pay the HMO up to 95% of the adjusted average per capita cost for Medicare beneficiaries in the fee-for-service system. The new plans are expected to reduce or eliminate Medicare's current cost-sharing. Beneficiaries would continue to pay Medicare's monthly Part B premium, now at \$14.60 a month, however, and could be charged a new monthly HMO premium as well. That premium is expected to vary from about \$20 to \$50 a month.

About 775,000 or 2.5% of all Medicare beneficiaries are now enrolled in HMOs. Most of these are in 21 demonstration plans where reimbursement is similar to that in the new regulations.

HHS Secretary Margaret Heckler predicted that another 600,000 Medicare beneficiaries would enroll in HMOs within the next three or four years. She said

the new payment arrangement will "mean more complete medical coverage with lower out-of-pocket costs" for beneficiaries and "long-term savings for the Medicare program" as well. She acknowledged, however, that the plan is expected to cost Medicare about \$30 million in its first year of operation and \$65 million in the second. Indeterminate savings are anticipated in the third year of the plan.

Senate Gets Malpractice Bill

A medical malpractice bill introduced earlier this spring by Reps. Richard Gephardt (D-MO) and Henson Moore (R-LA) now has a Senate sponsor.

Minnesota Republican David Durenberger introduced the measure in the Senate on May 17. Called the Alternative Medical Liability Act of 1984, the bill would apply the no-fault concept to medical liability. It would apply only to patients whose care was paid for by the federal government though states would be encouraged to expand it to other citizens.

In introductory remarks, Durenberger said that while he does "not agree with all the provisions" in the bill, he does see it as "an important focus for national discussion" of the malpractice issue.

Candidates' Outlook on Medicare

The major health policy difference between the two front-running Democratic presidential contenders lies in their attitude toward preventive care, the candidates' health policy advisers agree.

Colorado Senator Gary Hart's policy would rely much more heavily on enhanced prevention measures to control health costs than would former Vice President Walter Mondale.

Both men, however, support a nationally mandated, state-run health care cost containment program that would control hospital and physician charges for all hospital inpatients. Though details of the proposals may vary, both proposals are admittedly similar to legislation introduced by Sen. Edward Kennedy (D-MA) and Rep. Richard Gephardt (D-MO).

The candidates' views were outlined at a May meeting of the Healthcare Financing Management Association. Yale Professor Theodore Marmor, Ph.D., discussed Mondale's views. Hart's positions were detailed by Andrew Dunham, Ph.D. White House adviser Jack Svahn, who had been scheduled to present President Reagan's views, withdrew from the program.

Government Loses Baby Doe

The government's controversial Baby Doe regulations, challenged by the AMA, have once again been struck down by the courts.

In his May 23 order, Judge Charles L. Brieant of the U.S. District Court for the Southern District of New York called the regulations "invalid, unlawful, and without statutory authority."

He based his ruling on a May 2 decision against the government in the case *United States v. University Hospital* (Baby Jane Doe), which limited the statutory authority of Section 504 of the Rehabilitation Act. Section 504—the government's anti-discrimination law—was the legal backbone of the Baby Doe regulations.

The government had contended that Section 504 applied whenever an infant's handicap could influence medical decision-making. However, the court's earlier ruling stressed that Section 504 was designed to apply to issues of education, employment, and transportation.

"The AMA is elated with the ruling invalidating the final Baby Doe regulations. This ruling affirms that the federal government does not belong in cases involving the medical treatment of severely-handicapped newborns," according to a joint statement issued by Frank J. Jirka, Jr., M.D., president of the AMA, and John J. Coury, Jr., M.D., chairman of the AMA Board of Trustees.

The AMA—joined in its suit by the American Hospital Association, the American College of Obstetricians and Gynecologists, the American Academy of Family Physicians, the Hospital Association of New York State, and the Association of American Medical Colleges—argued that the regulation exceeded the authority of Section 504.

Surgeon General's Report on Smoking

Physicians can play an important role in reducing chronic lung disease which claims 50,000 lives each year from cigarette smoking, stresses the 1984 Surgeon General's Report on Smoking released in May.

Cigarette smoking causes 80% to 90% of all cases of chronic obstructive lung disease. In many studies, heavy smokers experienced 30 times the chronic lung disease mortality rate of non-smokers, said Surgeon General C. Everett Koop, M.D., in a Washington press conference.

For the first time, the report describes the actual mechanism of disease: the inflammatory response to smoke produces high levels of elastase, an enzyme that degrades lung tissue; at the same time, smoke inactivates alpha-1-antiprotease, the protein that blocks elastase activity. Excess elastase can lead to diseases such as emphysema, according to the report.

It also underlines the need for physicians to promote quitting. "I am happy to report that we physicians have for the most part abandoned cigarette smoking; only 10% of us still smoke, compared to more than half of all physicians and surgeons just a few years ago," said Dr. Koop.

Just days prior to the report, Dr. Koop called for a smoke free society by year 2000, echoing AMA's 1983 policy statement.

New Cigarette Labels

After months of negotiating between health and tobacco groups, Congress is on the verge of approving explicit warning label legislation that stresses the specific risks of cigarette smoking.

If approved in June as expected, cigarette packages would contain a different warning every three months:

- "Smoking causes lung cancer, heart disease, emphysema, and may complicate pregnancy,"
- "Smoking by pregnant women may result in fetal injury, premature birth, and low birth weight infants," and
- "Cigarette smoke contains carbon monoxide."

The new labels would be printed in a heavily bordered rectangle 50% larger than the current label. Similar warnings would be used in cigarette advertisements on billboards.

House Committee Approves New Organ Bill

On May 1, the House Energy and Commerce Committee passed a bill which would authorize \$40 million over four years for grants to agencies that arrange for organ donations, and \$30 million over two years to provide drugs needed by organ recipients. It also sets up a national transplantation network for matching organs to needy patients.

The House bill, HR-5580, does not include the controversial provisions listed in an earlier version, HR-4080, which permitted Medicare to limit coverage for all procedures—not just transplants—to selected patients, practitioners, and institutions.

Video Terminals No Hazard, Physicians Tell Congress

Video display terminals (VDTs) pose no serious hazard to vision or pregnancy, physicians told members of a subcommittee of the House Education and Labor Committee during investigative hearings in May.

Since the early 1970s, when the use of VDTs became widespread, there have been reports of health effects produced by radiation emission. The most serious complaints focused on cataracts, miscarriages and birth defects.

The level of radiation emitted from VDTs is insufficient to cause spontaneous abortions or birth defects, said Marcus B. Bond, M.D., of the American College of Obstetricians and Gynecologists (ACOG).

Both ACOG and the American Academy of Ophthalmology agreed that fatigue and physical discomfort may result from VDT use. Improper illumination, glare, a poorly designed workstation, and other stress factors should be changed to improve the working environment, they said.

FDA Commissioner Selected

Frank E. Young, M.D., dean and vice president of Health Affairs at the University of Rochester School of Medicine & Dentistry, has been selected as the new Commissioner of the Food and Drug Administration.

A microbiologist, Dr. Young has devoted several years to the study of genetic cloning and mapping of bacteria. Most recently, he published papers on the cloning of a *Streptomyces* neomycin-resistant gene into *E. coli*, cloning of a gonorrhea plasmid into *E. coli*, and cloning of an *E. coli* gene into *Bacillus subtilis*.

Dr. Young will begin his appointment sometime after July. He is a member of the American Medical Association, the American Association of Medical Colleges, the American Association of Medical Colleges, the American Association of Pathologists, and the American Society of Microbiologists.

Vaccine Compensation Bill Heard

When an individual is vaccinated, society is protected from disease. It is only fair for society to protect the individual from the risks of vaccination, say supporters of the newly proposed National Childhood Vaccine-Injury Compensation Act.

"Large scale participation in the immunization program is essential for its success. Thus, there should be a public commitment to assure some form of compensation to those unavoidably injured," said sponsor Sen. Paula Hawkins (R-FL) in May hearings on the new bill before the Senate Committee on Labor and Human Resources.

The bill should ease the concerns of both parents and vaccine manufacturers, said Sen. Hawkins. By promising reimbursement for the medical expenses that result from adverse reactions, it may restore public confidence in the nation's vaccination program. By assuming liability for these adverse effects, it may encourage drug companies to stay in the vaccine business.

If the bill is passed, physicians can expect: mandatory recording requirements for each vaccine's lot and number, plus the physician's name and address; mandatory reporting requirements of every serious reaction occurring within 30 days after vaccination; new regulations describing "high-risk" groups and instances when vaccination should be delayed or avoided altogether.

All childhood vaccines mandated by state laws would be covered: diphtheria, tetanus, pertussis, measles, mumps, rubella and polio.

Although the AMA supports the concept, it has several major criticisms: the court system route should be closed altogether, not left as an alternative route; specific vaccine injuries should not be listed in legislation, because there are too many variables; general revenue funding, not surcharges, should finance the program; and the list of high-risk groups and specific

adverse effects should be eliminated, because it interferes with professional judgment, according to Alan Nelson, M.D., a member of the AMA Board of Trustees who testified during the hearing.

Animal Research Once Again Under Fire

Yielding to public opposition, researchers are turning away from large-scale unnecessary use of laboratory animals, according to participants in a May symposium sponsored by the National Coalition for Science and Technology.

"There has been a silent psychological change among toxicologists, laboratory managers, and members of the public. There is increasing sensitivity to animals as living beings," said Lawrence E. Cunnick, president of the consulting firm Biocon, Inc.

"We all have a stake in eliminating unnecessary animal testing and accelerating good research," said Donald Stein, Ph.D., of Clark University and chairman of the Coalition. "For anyone engaged in biomedical research, the value of their work depends on maintaining the health and welfare of their animals to the highest degree possible."

Animals may always be essential to our understanding of surgical techniques, immune responses, and any basic biological function. Tissue pathology is, in many cases, an important experimental endpoint.

Their emotional appeal creates problems for researchers, however. Public uproar over animal care has resulted in a flurry of new rules.

The pressure toward decreasing animal use is apparent in every corner:

Private Industry. Increasing numbers of industries are upgrading their toxicology methods. Procter & Gamble Co. has developed an alternative to the Draize eye irritation test and now uses the Ames bacterial assay instead of live animals in first level mutagenicity screenings. Smith Kline & French is offering Animals Welfare Achievement Awards to encourage conservation of animals and new in-vitro techniques. Revlon reports a 20% reduction in the number of animals used; Avon, a 33% reduction; and Colgate Palmolive, a 50% reduction.

Academic Institutions. Increasingly, toxicologists are experimenting with bacteria, yeast, fruit flies, cell cultures, and even computers to test chemicals. The University of Texas Medical Branch's Integrated Functional Laboratory uses an Apple II Plus Computer to simulate the physiological functions of animals, thus reducing the number of animals needed for laboratory instruction. At Rockefeller University, Dennis Stark, D.V.M., Ph.D., has reproduced the chemical hallmarks of irritancy—traditionally obtained by gross visualization using the Draize test—in chemical-sensitive cell cultures.

Congress. At least four bills focus attention on the use and care of laboratory animals in research: S-657, introduced by Sen. Robert J. Dole (R-KS); S-773, containing a provision inserted by Sens. Orrin Hatch

(R-UT) and Edward Kennedy (D-MA); HR-2350, introduced by Reps. Doug Walgren (D-PA) and Edward R. Madigan (R-IL) and passed by the House last November; and HR-5098, newly introduced by Rep. Robert Torricelli (D-NJ).

State Legislators. This year alone, there have been an estimated 120 state bills introduced involving animals; of these, at least 20 directly relate to laboratory animals.

Federal Agencies. The National Institutes of Health recently unveiled proposed changes in government policy on animal experimentation. The new rules, if enacted, would require institutions to provide more specific information on animal research programs. Animal research committees would review and approve the care and use of all animals in grant applications and proposals. The regulation, proposed April 5, is now open for public comment.

New Drug Approvals

The Food and Drug Administration (FDA) approved a new antibiotic, cefonicid (Smith Kline & French Laboratories). Because it acts for up to five hours in the patient instead of minutes as do current antibiotics, a single daily injection works as well as four daily injections of current agents. If cefonicid catches on, and it will be widely advertised, it will cut the costs of administering antibiotics in hospitals and make more patients eligible for treatment as outpatients. This will have a major impact on health care costs—one study estimates that as much as \$277 million could be cut from the nation's hospital bill if the drug is used sufficiently widely.

Cefonicid is only the first of what are likely to be a series of such long-acting antibiotics. Hoffman-La Roche has applied to the FDA for approval for another, similar agent with an even longer action and a slightly different spectrum of antibacterial activity.

FDA is getting ready to approve the use of a kidney stone drug which will help prevent the formation of some types of kidney stones and thus avoid the need of surgery. The drug is potassium citrate (Urocit, Mission Pharmacal). It is one of the so-called orphan drugs although the studies leading to the pending approval were supported by NIH rather than by FDA.

Ibuprofen Goes Over-the-Counter

The popular painkiller, ibuprofen—marketed under the brand names Motrin and Rufen—will soon be available as an over-the-counter drug. The Food and Drug Administration approved non-prescription marketing of the drug on May 18.

The drug will be labeled for temporary relief of aches, pain from menstrual cramps, and fever reduc-

tion. Manufacturers say the drug causes less stomach irritation and less risk of overdose than aspirin.

One product, produced by Upjohn Co. and distributed by Bristol-Myers, will be called Nuprin. A second product, marketed by Whitehall Laboratories, will be sold as Advil. Both companies said distribution and advertising of the painkiller will begin as soon as possible.

announcements

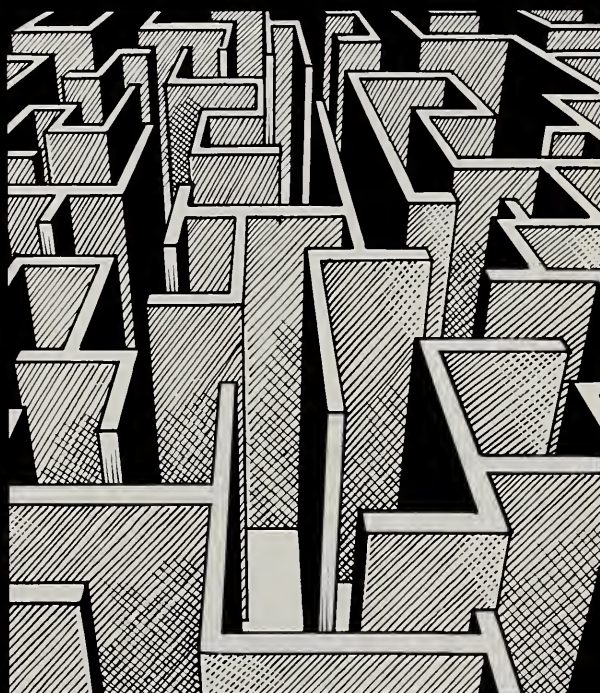
CALENDAR OF MEETINGS

NATIONAL

- Aug. 9-12 International Doctors in Alcoholics Anonymous—Hyatt Regency, Minneapolis
- Aug. 12-16 International Society for Experimental Hematology—Atlanta Downtown Marriott Hotel
- Aug. 19-23 American Society for Pharmacology and Experimental Therapeutics—Indianapolis
- Aug. 20-22 International Congress on Hyperbaric Medicine—Hyatt Regency, Long Beach, Cal.
- Aug. 26-31 American Physiological Society—Hyatt Regency, Lexington, Ky.
- Aug. 27-29 American Medical Fly Fishing Association—Ranch Hotel, West Yellowstone, Mont.

- Aug. 31-Sept. 5 World Congress on Pain (sponsored by Int'l. Association for the Study of Pain)—Seattle
- Sept. 3-7 International Congress of the International Academy of Pathology—Fontainebleau Hilton, Miami Beach
- Sept. 10-15 American Electroencephalographic Society—Hotel Utah, Salt Lake City
- Sept. 12-15 American Group Practice Association—Leows Anatole, Dallas
- Sept. 15-19 American Institute of Ultrasound in Medicine—Westin Crown Center, Kansas City, Mo.
- Sept. 15-20 American Academy of Pediatrics—Hyatt Regency, Chicago
- Sept. 16-20 American Academy of Otolaryngic Allergy—Las Vegas
- Sept. 17-20 American College of Radiology—Century Plaza, Los Angeles
- Sept. 19-22 American Thyroid Association—Waldorf Astoria, New York
- Sept. 20-22 American Association for the Surgery of Trauma—Hyatt Regency, New Orleans
- Sept. 20-22 American College of Nutrition—Boston Park Plaza
- Sept. 20-23 American Society of Bariatric Physicians—MGM Grand, Reno, Nev.
- Sept. 20-23 American Society of Internal Medicine—Hilton Palacio, San Antonio, Tex.
- Sept. 25-28 American Academy of Occupational Medicine—Hotel Utah, Salt Lake City
- Sept. 30-Oct. 5 Congress of Neurological Surgeons—Hilton Hotel, New York

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Tennessee Medical Association Membership Statistics—July, 1984

CAROLYN SANDLIN
TMA Membership Department

The Tennessee Medical Association continues to reap the benefits of an in-house computer by providing current information for and to the membership. The overwhelming response to the TMA request for the membership profiles has made our information more accurate.

The Association has 4,817 dues-paying members and 798 members who are exempt from dues because of age, retirement at age 65, disability, military, and student status. Our statistics also show that 60% of the membership has been certified by the American Specialty Boards.

Figure 1 shows that the percentage of the TMA membership with degrees from Tennessee Medical schools has dropped from 59% last year to 58% currently, with 2,520 graduates from the University of

Tennessee Center for Health Sciences, 628 graduates from Vanderbilt University School of Medicine, and 72 graduates from Meharry Medical College. Figure 2 lists all of the medical schools in the United States and Canada represented in the TMA membership.

Figure 3 provides a study in age distribution. Physicians in the 35 to 45 year age group comprise 29% of the membership compared to 28% last year, and the 65 and over age group comprise 14% this year as compared to 13% last year. The female membership remains at 5%, with 280 members.

Figure 4 gives the number of physicians in the listed specialties as indicated by the physician or as listed by the Licensing Board for the Healing Arts for the State of Tennessee.

FIGURE 1

TMA MEMBERSHIP PROFILE BY LOCATION OF MEDICAL EDUCATION

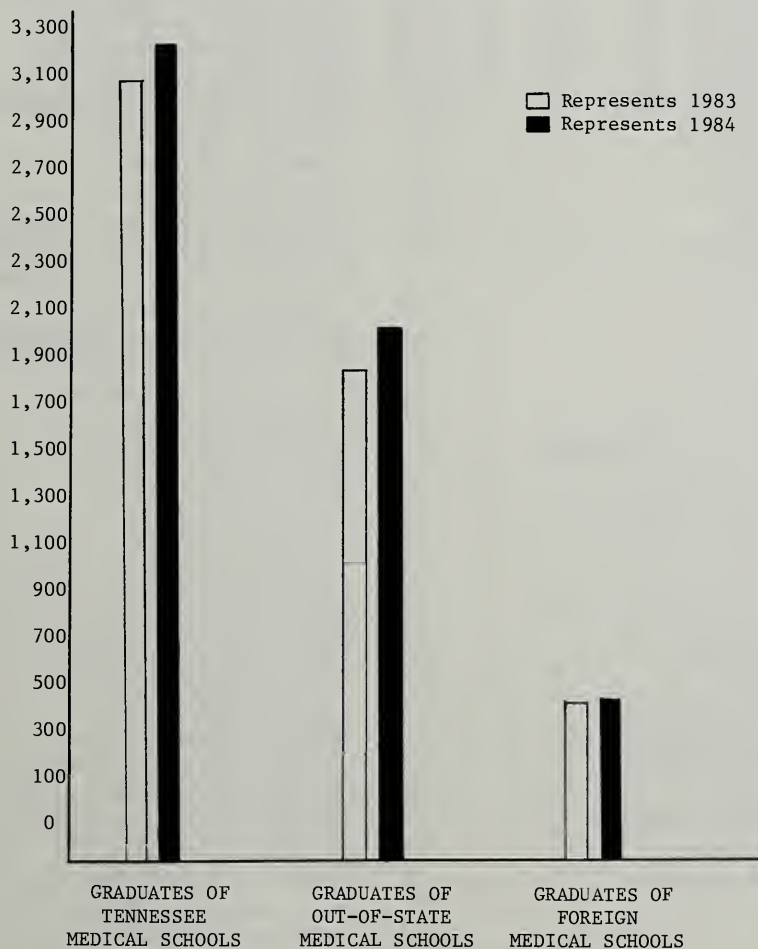


FIGURE 2**MEDICAL SCHOOLS IN UNITED STATES AND CANADA REPRESENTED IN TMA MEMBERSHIP**

University of Tennessee/TN	2,520	Hahnemann Medical College/PA	9
Vanderbilt University/TN	628	Tufts University/MA	9
Tulane University/LA	100	University of Minnesota/MN	8
Loma Linda University/CA	78	University of Nebraska/NE	8
University of Louisville/KY	77	Medical College of Pennsylvania/PA	8
Emory University/GA	74	Albany Medical College/NY	7
University of Virginia/VA	74	Boston University/MA	7
Meharry Medical College/TN	72	University of Colorado/CO	7
Medical College of Georgia/GA	67	Howard University/DC	7
University of Arkansas/AR	62	University of Missouri/MO	7
Duke University/NC	61	University of California/CA	6
University of Mississippi/MS	57	State University of New York, Buffalo/NY	6
Medical College of Virginia/VA	56	University of Vermont/VT	6
Johns Hopkins University/MD	55	University of Washington/WA	6
University of Alabama/AL	50	University of South Alabama/AL	5
Harvard Medical School/MA	46	Creighton University/NE	5
Washington University/MO	44	Dalhousie University/Canada	5
University of Pennsylvania/PA	43	University of South Florida/FL	5
Louisiana State University/LA	41	State University of New York, Syracuse/NY	5
University of North Carolina/NC	37	University of Western Ontario/Canada	5
Medical College of South Carolina/SC	37	University of Utah/UT	5
Bowman Gray School of Medicine/NC	36	University of Alberta/Canada	4
Indiana University/IN	36	Chicago Medical School/IL	4
Northwestern University/IL	32	University of Ottawa/Canada	4
University of Illinois/IL	31	Pennsylvania State University/PA	4
Baylor College of Medicine/TX	29	University of Southern California/CA	3
Jefferson Medical College/PA	29	Louisiana State University/LA	3
Ohio State University/OH	28	University of Manitoba/Canada	3
University of Michigan/MI	27	Mayo Medical School/MN	3
George Washington University/DC	26	Mount Sinai School of Medicine/NY	3
University of Cincinnati/OH	23	Ohio State University/OH	3
University of Texas/TX	23	University of Oregon/OR	3
Columbia University/NY	22	Rush Medical College/IL	3
Temple University/PA	20	University of Texas, San Antonio/TX	3
University of Oklahoma/OK	19	University of British Columbia/Canada	2
St. Louis University/MO	19	University of California, Los Angeles/CA	2
Wayne State University/MI	19	University of Connecticut/CT	2
University of Kansas/KS	18	Memorial University of Newfoundland/Canada	2
University of Kentucky/KY	18	Southern Illinois Medical School/IL	2
University of Rochester/NY	18	Michigan State University/MI	2
Cornell University/NY	17	University of New Mexico/NM	2
State University of New York, Brooklyn/NY	17	University of Toronto/Canada	2
University of Maryland/MD	16	Albert Einstein College/NY	1
Case Western Reserve University/OH	15	University of Arizona/AZ	1
Georgetown University/DC	15	University of Calgary/Canada	1
University of Iowa/IA	15	University of California, Irvine/CA	1
New York University/NY	15	University of California, San Diego/CA	1
West Virginia University/WV	15	Denver & Gross College/CO	1
University of Wisconsin/WI	15	East Virginia Medical School/VA	1
University of Florida/FL	14	General Medical College/IL	1
University of Pittsburgh/PA	14	Laval University/Canada	1
University of Texas, Southwestern/TX	14	McMaster University/Canada	1
Pritzker School of Medicine/IL	13	University of Montreal/Canada	1
University of Miami/FL	12	New Jersey Medical School/NJ	1
Medical College of Wisconsin/WI	12	University of North Dakota/ND	1
McGill University/Canada	11	University of Puerto Rico/PR	1
New York Medical College/NY	11	Queens University/Canada	1
Yale University/CT	11	Texas Tech University/TX	1
Loyola University/IL	10	Foreign Medical Schools	389

FIGURE 3

TMA MEMBERSHIP PROFILE BY AGE

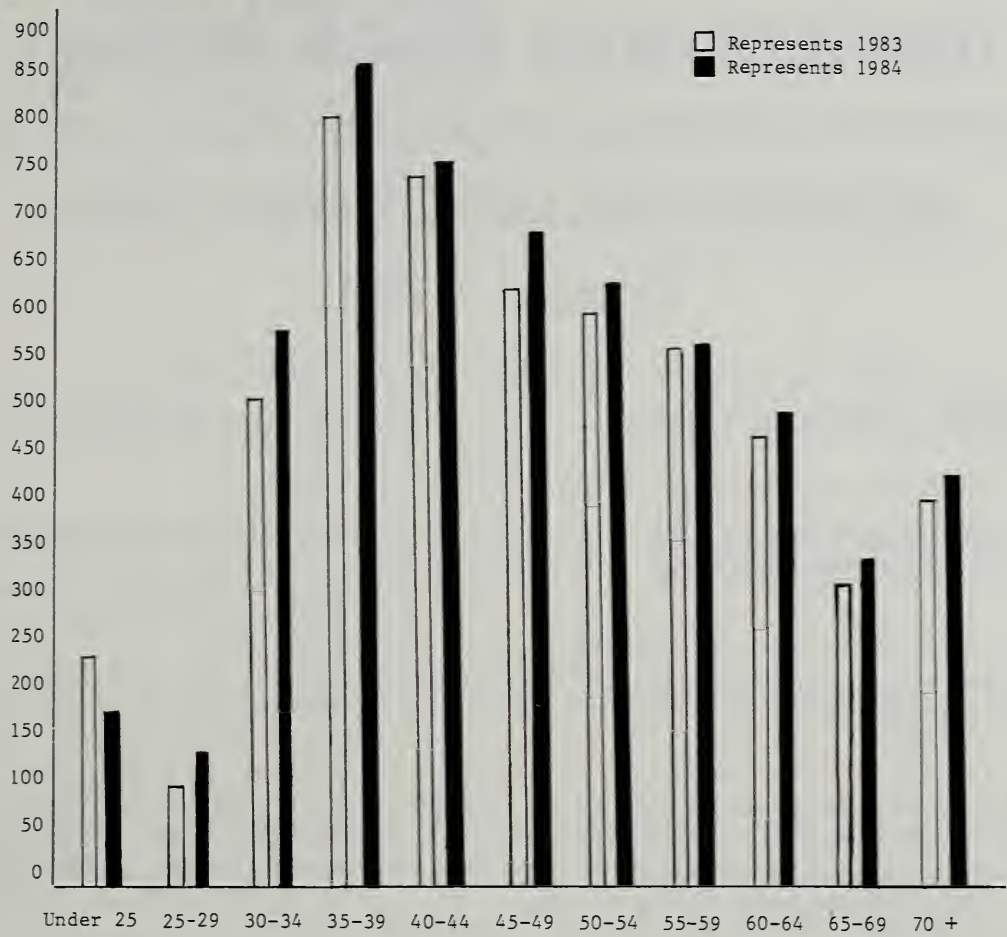


FIGURE 4

NUMBER OF TMA MEMBERS IN LISTED SPECIALTIES*

Internal Medicine	711	Neurological Surgery	79	General Preventive Medicine	11
Family Practice	521	Dermatology	72	Pediatric Surgery	10
General Surgery	493	Plastic Surgery	66	Hematology	9
Obstetrics/Gynecology	348	Thoracic Surgery	59	Nuclear Medicine	9
General Practice	311	Gynecology	48	Colon & Rectal Surgery	8
Pediatrics	306	Gastroenterology	47	Pediatric Allergy	7
Orthopedic Surgery	248	Neurology	46	Endocrinology	7
Anesthesiology	242	Pulmonary Diseases	38	Otology	7
Radiology	219	Occupational Medicine	35	Pediatric Cardiology	6
Ophthalmology	212	Cardiovascular Surgery	30	Physical Med./Rehabilitation	6
Psychiatry	188	Oncology	29	Aerospace Medicine	5
Pathology	187	Public Health	29	Diabetes	5
Urology	154	Child Psychiatry	18	Neonatal-Perinatal Medicine	5
Otorhinolaryngology	114	Rheumatology	18	Child Neurology	4
Cardiovascular Diseases	98	Allergy/Immunology	16	Obstetrics	3
Emergency Medicine	95	Nephrology	16	Other	22
Diagnostic Radiology	86	Therapeutic Radiology	15		

*Only primary specialties listed in this study.

TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga and Hamilton County Medical Society, Inc.)

CHATTANOOGA CHOO CHOO CENTENNIAL CENTER

October 1-2, 1984

MONDAY, OCTOBER 1, 1984

7:30 a.m. Registration

ADVANCES IN SURGERY AND FAMILY PRACTICE

- 8:15 a.m. John J. Bergan, M.D., Chicago
"ADVANCES IN VASCULAR SURGERY"
- 9:00 a.m. Abe Macher, M.D., Bethesda, MD
"ACQUIRED IMMUNE DEFICIENCY
SYNDROME"
- 9:45 a.m. Coffee Break—Exhibit Visitation
- 10:15 a.m. Eugene A. Stead, Jr., M.D., Durham, NC
"UNIQUENESS OF THE ELDERLY PATIENT"
- 11:00 a.m. Melvin J. Steinhart, M.D., Albany, NY
"THE EMOTIONAL ASPECT OF A
MYOCARDIAL INFARCTION"
- 11:45 a.m. Questions & Answers
- 12:00 noon LUNCHEON
Studio Room, Chattanooga Choo-Choo
SPEAKER: Fred J. Young, Chicago
SUBJECT: "PERSONAL FINANCIAL
SECURITY"

FRONTIERS OF MEDICINE

- 1:30 p.m. Anne Colston Wentz, M.D., Nashville
"IN-VITRO FERTILIZATION"
- 2:15 p.m. William W. Stead, M.D., Durham, NC
"COMPUTERS IN MEDICINE"
- 3:00 p.m. Coffee Break—Exhibit Visitation
- 3:30 p.m. Robert H. Alford, M.D., Nashville
"IMMUNIZATIONS 1984: HEPATITIS B,
HERPES, INFLUENZA AND
PNEUMOCOCCUS"
- 4:15 p.m. Roy Curtiss, III, Ph.D., St. Louis
"GENETIC ENGINEERING AND OTHER
SOCIO-MEDICAL ISSUES"
- 5:00 p.m. Questions & Answers

TUESDAY, OCTOBER 2, 1984

7:30 a.m. Registration

ADVANCES IN ENDOCRINOLOGY

- 8:15 a.m. Howard R. Nankin, M.D., Columbia, SC
"SEXUAL DYSFUNCTION
IN THE MALE"
- 9:00 a.m. Harold E. Lebovitz, M.D., Brooklyn
"SECOND GENERATION ORAL
HYPOGLYCEMIC AGENTS"
- 9:45 a.m. Coffee Break—Exhibit Visitation
- 10:15 a.m. Robert S. Weinstein, M.D., Augusta, GA
"METABOLIC BONE DISEASE"
- 11:00 a.m. James G. Johnson, M.D., Memphis
"ACUTE RENAL FAILURE"
- 11:45 a.m. Questions & Answers
- 12:00 noon LUNCHEON
Studio Room, Chattanooga Choo-Choo
SPEAKER: Margaret Rhea Seddon, M.D.
Houston
SUBJECT: "A VIEW FROM SPACE"

ADVANCES IN INTERNAL MEDICINE

- 1:30 p.m. John W. Hollifield, M.D., Nashville
"SUDDEN DEATH"
- 2:15 p.m. James K. Penry, M.D., Winston-Salem, NC
"ADVANCES IN EPILEPSY"
- 3:00 p.m. Coffee Break—Exhibit Visitation
- 3:30 p.m. Thomas G. Peters, M.D., Memphis
"TRANSPLANTATION—UPDATE"
- 4:15 p.m. Martin J. Collen, M.D., Bethesda, MD
"MEDICAL TREATMENT OF PEPTIC ULCER
DISEASE"
- 5:00 p.m. Questions & Answers

Ureteroscopic Stone Removal: Early Experience in a Rural Tennessee Community Hospital

PAUL J. MARSIDI, M.D. and SUSANNE D. McNEELY, R.N.

Ureterorenoscopic stone removal has been used with increasing frequency, and its routine use in rural hospitals can reduce morbidity and lost work hours.

Materials and Methods

Since May 1983 we have used the 11.5 Storz ureterorenoscope which consists of a 41-cm sheath with a 5 french working channel and a 5° or 70° lens. With proper equipment it can be used to dilate, fulgurate, biopsy, and remove stones with or without ultrasonic fragmentation.

Between May 1983 and May 1984 we used the ureterorenoscope in 23 patients for ureteral stone extraction; 17 were in men. The ages ranged from 23 to 70 years. All of the stones were analyzed as calcium oxalate except one uric acid stone. Two patients had multiple calculi removed during the same stay. Nine patients went home the day following surgery, and 78% were discharged within four days. Two patients needed open surgery for perforation or avulsion of the ureter. One patient had several oxalate stones as a result of

his ileal bypass for obesity, necessitating several procedures for stone removal, but during his most recent admission no stone could be seen on x-ray. The question arose if the patient has become a drug addict, but at diagnostic ureteroscopy four stone fragments were removed. In this instance, use of the ureteroscope prevented unnecessary suffering and mislabeling of the patient. A 70-year-old patient underwent a transurethral prostatectomy without any ill effects immediately after stone removal.

Discussion

Endoscopic diagnosis and treatment have fascinated man for centuries, but the first endoscopic attempt was attributed to Bozzini in 1806. Since then the use of endoscopy found many applications in various forms, of which cystoscopy is the most widely used.

It is natural that urologists tried to extend their reach farther than the bladder, into the ureter and kidney. Ureteral endoscopy is one of the newer techniques utilizing both flexible and rigid instruments. Experimental use of the ureteroscope has been reported by several authors, starting with Goodman,¹ who used a pediatric cystoscope, and further developed by Lyon et al^{2,3} who has been involved in over 200 applications of the uretero-

From the Department of Urology, Baptist Memorial Hospital, Union City, Tenn.

Reprint requests to 1020 Reelfoot Ave., Union City, TN 38261 (Dr. Marsidi).

URETEROSCOPIC STONE REMOVAL/Marsidi

scope. Although the point of the procedure is to avoid open surgery, he reported failure necessitating open surgery in 10% of the cases. Nevertheless, he advocates the use of the ureterorenoscope because it allows direct visualization and recognition of the defect. It also allows accurate grasping of stones, providing an element of security unachievable with the Dormia basket. Although the authors reported their experience only in stone removal, several other applications are possible.

Used in the renal pelvis, it may help in the diagnosis of structural distortion such as renal tumors, tuberculosis, abscess, pyelonephritis, stenosis and papillary necrosis, determination of function, e.g., in ureteropelvic junction obstruction, and diagnosis of filling defects, e.g., blood clots, tumor, and sloughed papillae.

Direct visualization of filling defects in the ureter, e.g., in ureteritis cystica and with non-opaque stones, will limit or eliminate ambiguous diagnoses such as "essential hematuria," "filling defect," and "either blood clot or nonopaque

stone" that we have all encountered in medical practice.

Kaufman⁴ warned, however, against over-enthusiasm in using new urologic endoscopic procedures, and in his article stressed that complications do occur. The patient should be informed of the inherent risk of such procedures, and the urologist must be wary of the problems that might occur. He also urged urologists to report their experience in upper tract endoscopy.

Although until recently the use of this instrument has been largely limited to major institutions, with increased experience and commercial availability, it will be used more and more as the procedure of choice. Properly used, the ureterorenoscope can reduce diagnostic procedures and lost work hours, resulting in cost effectiveness benefiting the hospital, physician, and patient, even in a rural setting as we have shown. □

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2. Lyon ES, Kyker JS, Schoenberg HW: Transurethral ureteroscopy in women: a ready addition to the urological armamentarium. *J Urol* 119:35, 1978.
3. Lyon et al: Ureteroscopy. *Trends in Urology*, vol 6, no 1, Feb 1984.
4. Kaufman JJ: Ureteral injury from ureteroscopic stone manipulation. *Urology* 23:267, 1984.

Help for Impaired Physicians

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early and family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

HELP US TO HELP

Call the TMA Impaired Physician Program (615) 327-2711; outside Nashville call collect. Phone service available around the clock.

Small Cell Carcinoma of the Esophagus:

Case Report and Review of the Literature

ANAND KARNAD, M.D. and THOMAS R. POSKITT, M.D.

Small cell carcinoma of the esophagus is a rare tumor, first described by McKeown in 1952.¹ Approximately 24 cases have been described in the medical literature. These cases have both histologic and clinical characteristics of small cell lung cancer with a rapidly fatal course when untreated.

From the Department of Internal Medicine, East Tennessee State University, Quillen-Dishner College of Medicine and the Mountain Home Veterans Administration Medical Center, Johnson City, Tenn.

Reprint requests to Veterans Administration Medical Center, Mountain Home, TN 37684 (Dr. Poskitt).

ed.² Our patient had a prompt remission with combination chemotherapy despite the presence of extensive metastases. Recent reports have likewise indicated a good response to multi-agent chemotherapy.^{3,4}

Case Report

A 46-year-old man with a one-month history of dysphagia was found to have an irregular filling defect and stricture of the mid-esophagus on barium esophagram (Fig. 1A). Physical examination revealed an enlarged, nontender liver as well

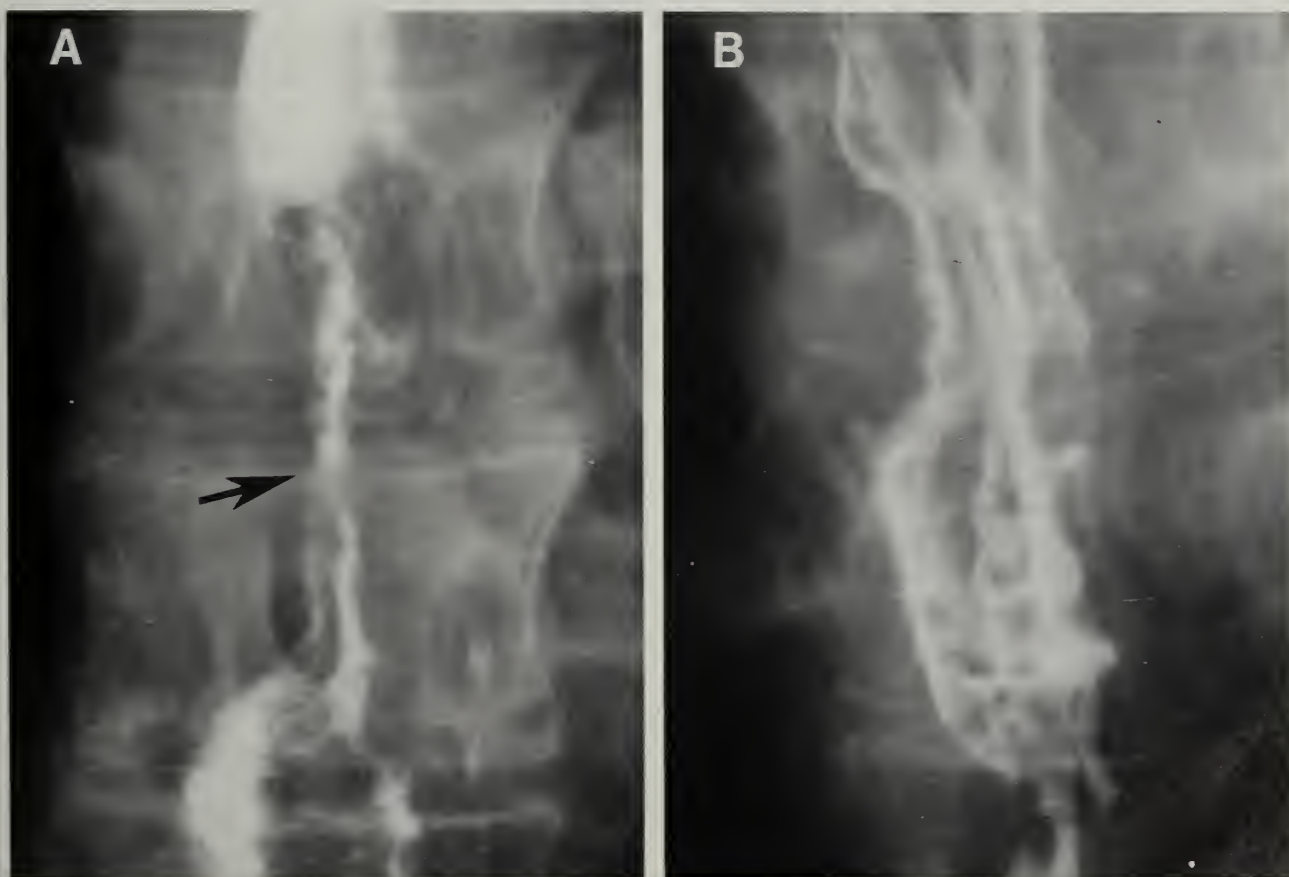


Figure 1. (A) Spot film of barium esophagram performed on admission demonstrating mid-esophageal mucosal defects and severe stricture (arrow). (B) Reexpansion of lumen after two cycles of chemotherapy.

CANCER OF THE ESOPHAGUS/Karnad

as firm, nontender, mobile 2-cm lymph nodes in both axillae and groin. Neurological examination was unremarkable. Esophagoscopy showed an irregular stricture 28 cm from the incisors with the lumen measuring 3 to 4 mm. A fine needle aspirate of the axillary and inguinal lymph nodes, a liver biopsy, and biopsy of the esophageal lesion all showed undifferentiated small cell carcinoma. Because of the possibility of an occult primary bronchogenic carcinoma eroding into the adjacent mid-esophagus, a CT scan of the chest as well as bronchoscopy were performed and were both normal. A CT scan of the brain showed multiple metastases in the right parietal cortex. The patient was treated with five cycles of cyclophosphamide 750 mg/sq m, doxorubicin 50 mg/sq m, and vincristine 1 mg/sq m every three weeks in addition to receiving 3,000 rads of whole brain radiation. After two courses of chemotherapy, the patient's dysphagia resolved, and repeat barium esophagram showed irregular mucosal defects but no stricture (Fig. 1B). On completion of whole brain radiation, a repeat CT scan showed complete resolution of the metastases. Six months after starting chemotherapy, he was readmitted with dysphagia. A barium esophagram revealed marked mucosal defects and stricture. His condition deteriorated rapidly with the development of Gram-negative sepsis, and he died shortly thereafter; postmortem examination was denied.

Comments

Extrapulmonary small cell carcinomas are relatively uncommon neoplasms. In a series of 400 patients with a histologic diagnosis of small cell carcinoma seen in a six-year period at two institutions, Fer et al⁵ found 20 patients (5%) who had no detectable pulmonary lesions. McKeown¹ found only two extrapulmonary small cell carcinomas in 9,000 autopsies. Extrapulmonary small cell carcinoma has been described in a variety of sites as listed in Table 1. Approximately 24 cases of small cell carcinoma of the esophagus have been reported in the English literature (Table 2). These have usually been single case reports, and the true incidence is difficult to evaluate. The tumor occurs twice as often in men as in women with an age range from 52 to 76. They are usually fungating or polypoid lesions occurring with equal frequency as solitary lesions in the middle and lower thirds of the esophagus. An apparent multifocal presentation has been reported in one case.⁴

Microscopically, about one-half of the cases have been pure small cell carcinoma, whereas others have shown intermingled squamous cell carcinoma with two cases showing glandular differentiation. Ultrastructurally, a classic feature has been the presence of cytoplasmic argyrophil granules.

Earlier reports indicated a dismal prognosis

with an average survival of six months after diagnosis. More recently the use of chemotherapy has shown encouraging results. Kelsen et al³ treated a patient with chemotherapy alone and achieved a partial remission with a survival of nine months. Fer et al⁵ reported a patient with supraclavicular lymph node metastases who was treated with multi-agent chemotherapy and achieved a complete remission confirmed at autopsy 11 months later. Rosenthal and Lemkin⁴ reported a complete though brief remission without evidence of metastases after five courses of combination chemotherapy in a patient with multiple synchronous small cell carcinomas of the esophagus. Our patient, although having metastatic disease to liver, lymph nodes, and brain, achieved a rapid partial response to chemotherapy and whole brain radiation therapy.

Small cell carcinoma has to be considered in the differential diagnosis of undifferentiated cancer of the esophagus, especially when metastases involve the liver, brain, or peripheral lymph nodes. The importance of careful histologic evaluation has to be stressed so as to identify small cell carcinoma that may be associated with intermingling squamous differentiation. A pathologic diagnosis of undifferentiated esophageal carcinoma should be pursued, if possible, with electron microscopic evaluation to attempt to identify characteristic neurosecretory granules. Early recognition is important, and initial treatment should consist of standard chemotherapy used in treating small cell carcinoma of the lung. If a large obstructing primary lesion fails to respond promptly to chemotherapy, radiation therapy would appear to be a logical alternative in view

TABLE 1
SITES OF EXTRAPULMONARY SMALL CELL CARCINOMA

Paranasal Sinuses
Minor Salivary Glands
Hypopharynx
Larynx
Trachea
Gastrointestinal Tract
Thymus
Skin
Breast
Prostate
Cervix

TABLE 2
REPORTED CASES OF SMALL CELL CARCINOMA OF THE ESOPHAGUS

Authors/Year	Treatment	Course	Metastases at Autopsy
McKeown, 1952 (2 cases)	—	1. Died 5 days after admission 2. Died in hospital	1. Lymph nodes, liver, adrenals, bone marrow 2. Lymph nodes
Morson et al	?	?	?
Turnbull et al, 1975	Surgery	Died 18 months postoperatively	Lymph nodes, adrenals, liver, pancreas
Rosen et al, 1975	—	Died 5th hospital day	Liver, ribs, pleura, vertebrae, lymph nodes
Cooke et al, 1976	Surgery	Died immediately postoperatively	Lymph nodes
Matsusaka et al, 1976 (3 cases)	—	1. Died 1 month after diagnosis 2. Died 3 months after admission 3. Died soon after admission	All had widespread metastases
Tateishi et al, 1976 (6 cases)	All had surgery	4 died an average of 6 months postoperatively. One alive at 24 months; one alive at 14 months	All had widespread metastases
Imai et al, 1978	Bleomycin	No response; died 6 months after diagnosis	Liver, spleen, vertebrae, lymph nodes
Horaei et al, 1978	?	?	?
Kelsen et al, 1980	DDP, VP-16 followed by CAV	Partial remission; died 11 months after diagnosis with bone metastases	No autopsy
Reid et al, 1980	Surgery followed by chemotherapy (drug not stated)	Response not stated; Died 7 months after diagnosis	Liver
Sarmer, 1981	—	Died 1 month after diagnosis	Liver, adrenals, kidney, vertebrae, pleura, lymph nodes
Rosenthal and Lemkin, 1983	CAV	Complete remission; patient alive after 5 cycles of CAV; no evidence of disease	
Present case	CAV Whole brain RT	Disappearance of brain metastases; improvement in primary lesion. Died at 6 months	No Autopsy

Abbreviations: CAV—Cyclophosphamide, Adriamycin, vincristine
RT—Radiotherapy
DDP—Cis-Diaminedichloroplatinum

of the radiosensitivity of small cell carcinoma in general. Since extrapulmonary small cell cancers also have a high potential for early metastasis, prophylactic whole brain radiation might also be considered.

Summary

A 46-year-old man with small cell carcinoma of the esophagus and extensive metastases to liver, brain, and peripheral lymph nodes was treated with combination chemotherapy and whole brain radiation, resulting in a prompt remission with significant palliation lasting six months. Although this is an uncommon tumor, recognition

is important because of its responsiveness to chemotherapy and the potential for significant palliation of symptoms without surgical intervention.

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Pleuropericardial Window Without Thoracotomy: The Subxyphoid Approach

PATRICIO A. ILABACA, M.D.

Pericarditis can occur as a primary disease or secondary to a systemic disease. Inflammation of the pericardium can manifest itself in various pathologic changes which may lead to accumulation of fluid within the pericardial sac. Evacuation of this fluid is sometimes necessary and the creation of a pleuropericardial window through an anterior thoracotomy has been advocated for chronic or recurrent pericardial effusions. The subxyphoid approach has also been described to make a pericardial window without entering the pleural space.¹⁻⁴

In this communication a technique describing the creation of a pleuropericardial window through the subxyphoid approach is described.

Anatomic Considerations

The anterior wall of the pericardium is partially covered by the lungs and separated from it by the mediastinal pleura, which is intimately adherent to the pericardium. The external projection of the pericardium and pleura in the anterior chest wall is shown in Fig. 1.

Surgical Technique

Under general anesthesia and with the patient in the supine position, a vertical incision is made over the last 1 cm of the sternal body and carried down to about 2 cm below the end of the xyphoid process. The incision is deepened in the midline of the abdomen by severing the linea alba and then the dissection is carried superiorly beneath the costal margin in the preperitoneal space. The xyphoid process and about 1 cm of

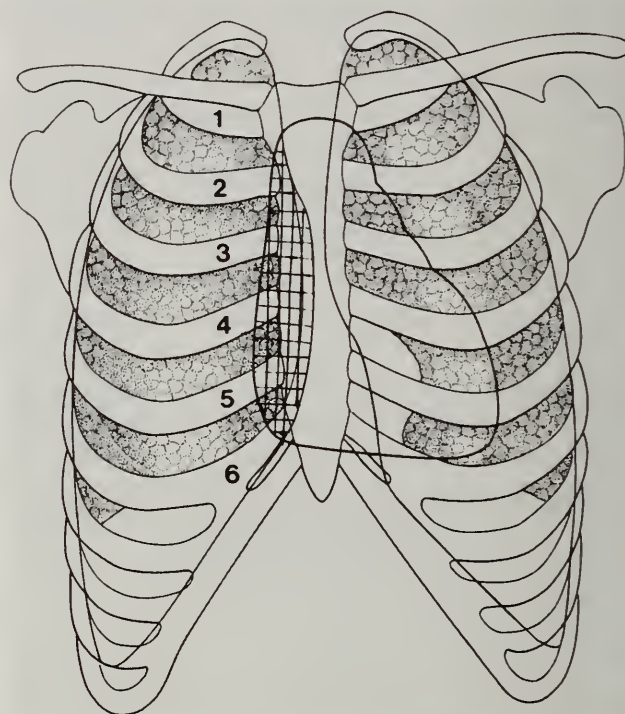


Figure 1. Pleural and pericardial projections over the chest wall. Note right anterior overlapping of pleura and pericardium (cross-hatched area).

sternum are removed with a rongeur. The pericardial sac at this point is easily and directly accessible to the surgeon.

A retractor is placed behind the sternum and with the assistant pulling up on it, the pericardium is incised and the fluid aspirated. With the electrocautery the pericardial incision is carried caudad to ± 0.5 cm of the diaphragmatic reflection and cephalad for 4 to 5 cm. At both ends, the pericardial incision is carried to the right with

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Reprint requests to 20 S. Dudley St., Suite 601-B, Memphis, TN 38103 (Dr. Ilabaca).

the lungs deflated, opening the pleura. A pleuropericardial flap is created and removed en bloc thus creating a pericardial window. Care must be taken not to extend the incision too far posteriorly in the pericardium to avoid damage to the phrenic nerve. A chest tube is left in the right chest and the pericardial sac, and then the wound is closed in layers in routine fashion.

We have used this technique in six patients with massive uremic and metastatic pericardial effusions with excellent control of drainage, no recurrence of effusions, and no pleural compli-

cations. It should not be used if infection is suspected because of secondary contamination of the right pleural cavity; open pericardial drainage without entering the pleura would be preferable in these cases.

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PENINSULA HOSPITAL

Louisville, Tennessee

Peninsula Hospital is a 75-bed private psychiatric hospital, providing treatment for acute emotional disturbances, drug and alcohol abuse, for both adolescents and adults.

Peninsula is fully accredited by the Joint Commission on Accreditation of Hospitals and is a member of the American Hospital Association, Tennessee Hospital Association, Federation of American Hospitals and the National Association of Private Psychiatric Hospitals.

The Professional Staff is composed of psychiatrists, licensed clinical psychologists, psychiatric social workers, psychiatric registered nurses, adjunctive therapists, and mental health workers. This experienced team, together with ancillary hospital workers, provides a dynamic treatment program designed for each individual to bring about change and emotional growth in the patient.

Peninsula provides a special treatment program for alcoholic and drug abuse patients. Another program is designed specifically for adolescents. The adolescent treatment program includes a fully staffed school program. An

individual education plan is designed for each adolescent.

A variety of therapeutic programs are scheduled for each patient's day. These include intensive individual psychotherapy, group psychotherapy, community meetings with staff and many collateral activities.

Patients may be referred to Peninsula by their own physician, former patients, or may be self-referred. Voluntary patients as well as those who are directed to the hospital by a court are accepted for treatment. It is desirable for the hospital to receive information from physicians, therapists, family and friends who know the patient. Treatment is individualized based upon the needs of the patient.

Appointments for admission can be made by calling the hospital directly. The phone numbers are:

Knoxville	573-7913
Maryville	983-8216

Health Care for an Aged Population

Introduction

In response to Resolution 85, the Board has analyzed emerging socioeconomic trends affecting the delivery of medical and health-related services to the elderly (i.e., persons aged 65 and over), in order to provide a basis for policy initiatives by organized medicine. Aging issues related to clinical practice and scientific policy will be discussed in later reports.

Since the projected increase in the number and proportion of the elderly will be one of the most critical factors affecting the health care system during the next several decades, an understanding of the key issues and developments in the delivery and financing of care to the aged will help physicians respond to a changing environment. Accordingly, this report provides a broad assessment of these issues by focusing on the following topics: environmental conditions affecting health care for the aged population; key issues and developments in alternative mechanisms for financing and delivering health care to the aged; and proposed Association activities necessary for AMA to consider in its ongoing assessment of this issue.

The Board's work on this topic to date suggests that although most physician care is oriented toward patients under age 65 with single, acute illness and private insurance, the elderly patient often exhibits multiple, multifaceted and chronic conditions, and have their care paid for by public programs. The analysis also suggests that the growth in the aged population will increase the need/demand for health services, particularly those delivered in hospitals and nursing homes. The rapid growth in the over age 75 population will create an upward pressure on health expenditures, which, in turn, will create additional pressures to change health care financing and delivery mechanisms, especially with the increasing ability of medical technology to prolong the lives of the very old.

The analysis further suggests that limits on public sector capabilities to finance needed services will place increasing pressure on the private sector to take a leadership role in dealing with emerging societal issues. In response to the health-related problems of an aging population, physicians, health care professionals, institutions, and payors are beginning to assess their current and future role in caring for older persons. It is the Board's opinion that a major policy issue facing the AMA is a delineation of its role in educating the

profession and the public on the multiple chronic afflictions affecting the elderly, and the socioeconomic implications involved in financing and delivering acute and long-term care to this population.

Environmental Conditions Affecting Health Care for the Elderly

Several aspects of health care delivery to the aged emphasize the importance of this issue in the coming decades and the need for AMA to help physicians assess and respond to a changing demographic environment.

Complex Health Problems

The health care problems of the elderly are often more complex than those of other age groups. These complexities include:

- *Physiological and Metabolic Changes:* As a part of the normal process of aging, certain changes such as the weakening of sensory perceptions occur. Because of these changes and their secondary ramifications, the treatment of elderly persons for medical problems is often more complex than treatment for the same problems in younger patients.

- *Higher Incidence of Disease:* Persons age 65 and over have a higher incidence of most of the major serious diseases, including cardiovascular diseases, cancer, glaucoma, dementia, and hypertension.

- *Increased Prevalence of Chronic Illness:* The prevalence of chronic degenerative illness rises dramatically with age; on average, elderly persons report having nearly three times the number of chronic conditions as adults aged 45 to 64.

- *Severe Functional Disability:* The severity of disability also increases with age. Elderly persons are 4.5 times more likely to suffer significant activity limitation due to chronic conditions than those under 65.

- *Multiple and Multifaceted Problems:* The combination of a higher incidence of disease and increased prevalence of chronic illness and functional disabilities often results in older persons having more than one major health problem. The compounding of health problems eventually affects the elderly person's social, economic and family status.

Higher Utilization of Health Services

As a result of having extensive and complicated health problems, elderly persons use more health services. Persons over age 65 average 6.4 physician visits each year compared to 4.0 for men and 5.3 for women under age 65. *Although comprising 11% of the total*

This is AMA Board of Trustees Report D, submitted to the House of Delegates at its Interim Meeting in December, 1983. Past House Action: A-83:105-106; I-82:91; A-81:222.

population, elderly patients make 30% of all patient visits to office-based physicians.

In addition, the elderly are the largest users of hospital services. Almost 40% of total hospital inpatient days are used by persons aged 65 and over. The elderly are admitted to a hospital three times more frequently and have an average length of stay 76% greater than younger adults. Approximately 25% of those over 65 receive at least one hospital outpatient service each year; 10% visit the hospital emergency room at least once each year.

Nursing home use is dominated by the aged. Some 1.35 million elderly—5% of those aged 65 and over—occupy 90% of the beds in 20,185 nursing homes nationwide. Nearly 20% of the elderly will spend some time in a nursing home before dying.

Finally, it is the very old who use health services the most. For instance, in 1979 hospital utilization by those aged 85 and over was more than double the days of hospital care per 1,000 population for elderly persons aged 65-74. Also, the percentage of elderly residing in nursing homes rises from 1.4% to 21.6% for the same age groups. Persons aged 85 and over accounted for 35% of all nursing home days in 1977, while comprising only 8% of the elderly population.

Greater Per Capita Health Expenditures

Since the use of health care services increases with age, so does the level of personal health care expenditures. The elderly accounted for 32.6% of the \$255 billion total spent for personal health care in 1981. Persons aged 65 and over incurred \$3,140 per capita in personal health care expenditures—over three-and-one-half times the \$828 per capita expenditure for persons under age 64.

Most of these expenditures are through public programs. Public programs finance almost two-thirds of the personal health care expenditures incurred by the elderly; Medicare payments cover 45% of the health expenditures of the aged, Medicaid reimburses an additional 14%. In contrast, private financing, primarily private health insurance and direct payments, is the major channel of payment for younger age groups.

Public and private nursing home costs are growing particularly fast. In 1960, expenditures for nursing home care comprised only 2.1% (an estimated \$500 million) of total personal health care expenditures. By 1981, nursing home services accounted for 9.5% of total personal health care expenditures, having more than quadrupled their share and totaling over \$24 billion. Almost 75% of all Medicaid expenses for the aged are for nursing home care. However, unlike hospital care, Medicare and private insurance provide little or no coverage for the aged—over 97% of private nursing home expenditures are out-of-pocket. Accordingly, nursing home care is a major out-of-pocket expense among the aged, and is in many instances a financial catastrophe for them or their families.

Growing Demand for Service as Elderly Population Grows

Between 1983 and 2025, the total population is projected to grow by almost 30%. In contrast, the elderly population will double to a total of 58 million, or 19.4% of the population. Further, the over 75 group

is growing at an even faster pace. Currently, 40% of the elderly are age 75 or older; by 2025, this figure will increase to 45%. Those age 85 and older now number about 2.5 million persons; by 2025 this group will triple to 7.6 million people.

The increasing number of elderly people suggest that need/demand for health services is likely to grow dramatically among this population. Major increases can be expected in the use of hospitals and nursing homes, if past patterns continue. Under current use rates and length of stay assumptions, hospital utilization by the elderly will increase from 105 million total hospital days in 1980 to almost 275 million in 2000—nearly tripling the use of hospital care by the aged in a 20 year period. Again, assuming current use rates, the number of elderly nursing home patients will increase 54% over the next 20 years.

Financial Implications for Health Services Delivery

At the same time that the need for health care services by the aged is increasing rapidly, the government's ability to raise the tax dollars necessary to provide such care will be significantly constrained, particularly as the children of the post-World War II baby boom turn 65 in 2010 and thereafter. The aged dependency ratio provides a rough measure of these fiscal constraints. The ratio is simply the number of persons in the "retirement years" (i.e., over 64) per 100 persons of working age (16-64). This ratio is a reasonable approximation of the number of "dependent" (i.e., non-working) elderly people which each tax-paying worker must support. In 1983, the dependency ratio is 18. If the retirement age is not raised, and if birth rates remain relatively stable, the ratio will begin rising in about 20 years and will reach 32 by 2025, a 77% increase.

This alarming scenario could be mitigated by a number of factors, such as a higher retirement age, higher birth rates, or greater labor force participation among the 16-64 age group, particularly among women. Nevertheless, the overall financial and services implications for caring for an aging population are clear. To meet the expected growth in need for health care services to the aged, more financial resources will be required, either to purchase more hospital and nursing home services, or to provide a different mix of services aimed at caring for the elderly in the community.

Policy Issues

The above environmental assessment suggests that health care for the aged will become an increasingly important socioeconomic policy issue. The limits on public sector capabilities, and perhaps willingness, to finance this care will put increasing pressure on the private sector to take a leadership role with regard to emerging societal issues. In addressing the problems in caring for a growing aged population, three key policy issues are: the appropriate role of social and other health-related services in providing long-term care for the chronically ill elderly; the reimbursement and service delivery implications of our increasing ability to develop and use expensive life-sustaining medical technology to keep alive those who are old and very ill; and the relative role of government, private sector,

family, and individual in financing acute and long-term care services for the aged.

Expansion of Health Care Concepts: The Issue of Long-Term Care

As the characteristics of the aged patient population shift from acute to chronic illness, the definition of health status is expanding beyond presence or absence of disease, to encompass the functional ability of the aged. Although functional ability is an indirect measure of health, research indicates that it is the most important determinant of the health resources and services required to meet the elderly's growing need for long-term care.

The phrase "long-term care" describes a range of medical and supportive services for individuals who have lost some capacity for self-care due to a chronic illness or condition, and who are expected to need care for an extended period. Individuals needing long-term care typically suffer from multiple problems that cause both functional impairment and physical dependence on others. Coping with these problems requires a complex array of services including physician care, nursing care, physical and occupational therapy, personal care services (e.g., assistance with bathing, dressing, eating, walking, etc.); case management; homemaker services (light housekeeping, meal preparation, and shopping); and chore services (heavier and less frequent tasks necessary to maintain a house or apartment). Long-term care services are often concerned with minimizing the effects of one or more diseases and delaying deterioration of the person's functional capabilities rather than with curative effects.

Until very recently, long-term care referred primarily to health-related services provided in various types of institutions, primarily nursing homes. Gradually, it has been expanded to include services to chronically ill and impaired persons to enable them to live outside institutions. The services involved, particularly the less medically oriented personal care and supportive services, can be provided either formally—by individuals or agencies who are paid for their services—or informally—by relatives or friends who provide assistance without pay. *Studies by the General Accounting Office and the U.S. Department of Health and Human Services indicate that between 60% and 80% of the long-term care the disabled elderly receive in the community is provided informally by a spouse, other relatives, and/or friends.*

The significance of informal assistance for delivering health care services to the aged is suggested by data that show nursing home use rates for the unmarried (widowed and single) elderly to be considerably higher than for the married aged. These differences in use rates far exceed the differences by sex and by type of diagnosis. Women, in particular, have a higher risk of institutionalization because their longer life span means they are more likely to be widowed or have children who themselves are old and disabled. These studies suggest that the *availability of a spouse and/or children, rather than any specific health service, is the most important determinant of entering a nursing home among the disabled elderly.*

Consideration of the appropriate role of social

services in caring for the aged has important resource allocation implications for physicians, health care practitioners, institutions, and payors. On the one hand, failure to consider these services in overall care planning will force the institutionalization of elderly persons who could otherwise receive needed medical care while living at home or in the community. Between 10% and 40% of the elderly residing in nursing homes are estimated to be capable of returning to the community if appropriate support services were available. Such institutionalization also creates problems for patients who remain in a hospital because a needed nursing home bed is unavailable. According to a 1982 study by the Health Care Financing Administration, Medicare and Medicaid pay for between 1 and 9.2 million days annually of inpatient hospital care for patients awaiting nursing home placement.

On the other hand, broader coverage of in-home and community-based social services could be extremely expensive. There is little evidence that coverage of these services reduces total health care expenditures. Indeed, most of the evidence from federally funded demonstration programs is to the contrary. This is because expanded service benefits largely go to a new (additional) service population rather than substituting for nursing home care.

Whether and on what terms to make available a broad range of social services to the chronically ill elderly to avoid the costly implications of inappropriate institutionalization will likely become a major issue in the near future. Demographic changes such as differences in longevity of men and women, the increasing divorce rate, the decline in the birth rate, the growth of single parent families, and the increasing participation of women in the workforce all militate against the family providing personal care to those of its chronically ill members who need it. The Board is concerned that these demographic changes suggest that the projected demand for institutional care may exceed current estimates which are based on simple growth in age-specific use rates.

The Role of Medical Technology in Extending Life and Caring for the Terminally Ill Elderly

Advances in medical technology continue to increase the ability to keep alive those who are old and very ill. As a result, there is growing concern over the substantial resources devoted to the extension of life and treatment of the terminally ill. Much of this concern stems from the belief that the cost of care provided to prolong life or treat the terminally ill in conventional settings may be excessive, especially when compared to alternative therapies or delivery mechanisms.

Research indicates that during the last year of life, the elderly are an extremely high cost segment of the patient population. In 1976, 1.225 million elderly persons—5.2% of all Medicare enrollees—accounted for 28.2% of Medicare expenditures (\$4.275 billion) in their last year of life. Over 46% of these expenditures were spent in the last 60 days of life. Overall, the Medicare program spent \$3,351 per capita on behalf of enrollees in their last year of life, a figure 6.6 times that of the \$509 spent per capita for survivors.

Another high cost segment of the elderly population are those patients benefiting from the new medical technologies coming into use offering a prolongation of life, but at very large costs (e.g., coronary bypass surgery, renal dialysis). For example, the total cost of Medicare's End-Stage Renal Disease (ESRD) program in 1982 was estimated at \$1.6 billion. The 71,000 Medicare beneficiaries who received ESRD services, less than half of one percent of all Medicare beneficiaries, accounted for over 3% of total Medicare expenditures.

The extent to which extraordinary measures should be used to sustain life is fundamentally an ethical question. However, in a period where resource availability for health care for the aged may become increasingly constrained, greater attention will inevitably be given to the delivery of appropriate life-sustaining services at lower costs. For example, the issue over which type of dialysis therapy (primarily home or in-center) is least costly is increasingly under debate. At the same time, there is a renewed interest in methods by which kidney donor availability can be increased. Proponents argue that kidney transplantation, when feasible, is a preferable alternative to dialysis since the costs are lower in the long run, and the quality of life of renal patients is improved.

These concerns have also led to an increased interest in hospice care, which emphasizes management of pain and other symptoms associated with terminal illness and the provision of care to the family as well as the patient. Proponents of hospice care argue that for a certain carefully defined segment of the very ill population (i.e., those diagnosed as terminally ill), high technology and the inpatient-curative model offer few benefits and many disadvantages as well as very high costs. Instead, they argue, community-based palliative care of the terminally ill provides greater patient and family satisfaction at significantly lower costs.

Despite the lack of definitive cost and quality information on hospice care, the hospice movement has grown rapidly in the United States. A recent report from the General Accounting Office indicated that the number of hospice programs has grown from 6 in 1976, to 132 in 1979, to an estimated 1,200 in the operation today. Thirty-five separate Blue Cross and Blue Shield plans currently offer hospice coverage, usually through an existing home health or inpatient benefit plan. Hospice care as a Medicare benefit was signed into law as part of the 1982 Tax Equity and Fiscal Responsibility Act (P.L. 97-248).

As cost pressures increase, there will be a growing need for new policies, programs, and financing arrangements designed to provide care to elderly persons. A key challenge of health care delivery will be the assurance of financial access to appropriate, cost-effective technologies aimed at improving the quality of life among the old and very ill.

Alternative Approaches for Financing Acute and Long-Term Care

Perhaps the most critical policy issue affecting the care of an aging population in the coming years is how to finance the elderly's growing need for acute and long-term care services. In the short run, this issue will

stem from the projected insolvency of the Federal Hospital Insurance Trust Fund, which finances all institutional care under Medicare. In the longer term, as the elderly continue to increase in numbers relative to the working age population (whose taxes effectively pay for government-sponsored health care programs) increasing attention will turn to alternative funding approaches and the relative role of the private sector, family, and individual in financing health care services for the aged.

Some of the major issues and trends that will influence that debate follow:

1. *Increased Individual Cost-Sharing and Catastrophic Coverage.* One approach is to have the elderly pay a greater share of the costs of providing acute and long-term care services. Cost-sharing can take a variety of forms including deductibles, coinsurance, co-payments, and limits on reimbursement or benefits. Increased cost-sharing, it is argued, reduces the elderly's dependence on publicly supported care and encourages more prudent use of health care services. However, because a small but significant percentage of the elderly population are high cost users of health care services, such an approach might worsen the financial position of the very ill, unless there is some protection against catastrophic expenses.

One positive trend supporting a somewhat increased reliance on cost-sharing is that poverty among the aged is declining. Between 1969 and 1978, the number of elderly with incomes below the poverty level dropped from 25.3% of the population over age 65 to 13.9%. Recent studies indicate that incomes of the elderly grew faster than those of the remaining population over the past decade. One study also found that general price inflation was no more devastating to the budgets of the elderly than to those of other age groups.

Despite increased incomes, however, persons age 65 and over spent a higher fraction of their total personal income on medical care in 1980 than 1970 (19.1% and 16.8% respectively). The distribution of these burdens are extremely uneven. While over half of all Medicare beneficiaries are expected to pay less than \$300 for health care in 1984, about 11% are expected to have Medicare related cost-sharing in excess of \$1,000. Proposals to shift an increasing portion of the cost of acute care services to these individuals will need to be considered carefully.

Another key financing issue is the catastrophic cost of long-term care. Direct out-of-pocket expenses account for virtually all private payments; insurance payments and charitable contributions account for less than 3% of all expenditures. Commercial insurers do not generally offer long-term care coverage because of perceptions that premiums are too expensive for the elderly and costs too difficult to predict. Whether efforts to increase the disposable income of the elderly (e.g., long-term care dedicated individual retirement accounts, reverse annuity mortgages) will increase their willingness and ability to pay for a fixed (predictable) insurance premium in return for catastrophic protection against long-term care costs is unclear. The critical issue is whether such insurance can be made actuarially sound and, at the same time, provide a wide array of service options at a reasonable cost.

2. *Prepaid Financing of Services to the Elderly.* A second approach combines elements of individual cost sharing with premium contributions from Medicare or Medicaid on a prepaid, fixed-budget basis. Much of the interest in capitation financing of care for the aged has focused on Medicare vouchers and the enrollment of the aged into competing health care plans. More than 20 federally sponsored demonstration projects are testing alternative risk reimbursement methodologies that include incentives for enrolling the elderly in prepaid plans offered by HMOs, insurance companies, and solo-practice physicians.

Private investors and providers of health care are also developing alternative delivery models that integrate health and social services under a capitation or prepaid plan. Two examples of private sector initiatives in this area are "Life Care Communities" and "Social/Health Maintenance Organizations."

Life care communities are housing-based programs that provide residents with health and social services, along with other amenities, to meet their continuing care needs late in life. The three common elements of life care programs are an entrance fee and a written continuing care contract that covers the balance of the resident's life; independent living units—either apartments, rooms, or cottages; and medical and skilled nursing care available on the premises.

The development of life care communities accelerated in the mid-1960s with the backing of religious and other not-for-profit groups. These organizations targeted their programs to relatively affluent elderly persons seeking an independent life-style that included opportunities for social relationships with contemporaries and readily available medical services and nursing care.

Today, an estimated 300 to 600 life care communities have been built for 75,000 to 100,000 middle-class elderly persons. Life care residents invest between \$13,000 and \$65,000 in front-end fees and an additional monthly maintenance fee of \$300 to \$900 for an apartment, housekeeping, meals, planned recreational activities, and, if appropriate, long-term care services. Most acute care services are financed either by Medicare or on a self-insurance basis. However, non-Medicare covered long-term care, such as extended nursing home services, are provided for in the continuing care contract. Life care communities average about 2.5 apartment residents for every nursing home resident in the program. Nine states presently regulate life care communities.

The *social/health maintenance organization (S/HMO)* is a managed system of health and long-term care services. Under this model, a single provider entity assumes responsibility for a full range of acute inpatient, ambulatory, rehabilitative, extended care, home health, and personal care services under a fixed budget which is prospectively determined. Elderly persons who reside in the service area are voluntarily enrolled through the marketing effort of the S/HMO provider entity. Once enrolled, they are obligated to receive all S/HMO covered services through S/HMO providers, similar to operations in a medical model health maintenance organization.

The S/HMO model is in the initial stages of field testing at four sites as part of a national demonstration

project funded by the Health Care Financing Administration. The S/HMO will be financed on a prepaid, capitated basis through premium contributions from Medicare, Medicaid, and enrollees. The project will test whether social services can reduce medical costs and whether institutional days can be reduced, family care maintained, and health and quality of life enhanced.

Proponents argue that prepaid health plans can hold per capita health care expenditures for the aged below alternative cost-based plans and offer a wider array of services of comparable quality. There is a question, however, whether actuarial methods can be developed to economically calibrate health costs and health risks among the elderly, and still provide adequate coverage for the small but significant number of high cost elderly patients. In addition, there is a lack of information on the overall effect of competing prepaid health plans on the cost or quality of care provided to the aged population. Nevertheless, as cost pressures increase, interest in prepaid, fixed budget financing and delivery mechanisms for the aged is likely to grow.

3. *Family Responsibility for Cost-Sharing.* Interest in and attention to the family's role in providing financial and other support to the elderly has received less scrutiny since the enactment of the various entitlement programs of the Social Security Act. While families continue to provide significant amounts of in-home care to the chronically ill elderly, they can be largely free of financial obligation once their disabled members enter a nursing home. Family ability (outside of the spouse) to share in the costs is almost never considered in determining Medicaid eligibility or nursing home payment.

Although most recent attention has focused on the issue of providing incentives to the family to give greater support at home instead of placing their chronically ill elders in a nursing home (e.g., tax incentives, direct payments, and respite care), some states are exploring mechanisms for imposing financial obligations on family members of the institutionalized elderly as a means to help control escalating public nursing home costs both directly, by reducing Medicaid payments, and indirectly, by providing an additional incentive for families to choose less expensive home-based care. Idaho, for example, has recently enacted legislation requiring responsible relatives (including natural and adoptive children) to pay up to 25% of the costs of nursing home services. Debate over this issue is likely to intensify as federal and state governments become increasingly concerned with escalating nursing home costs.

Implications for Organized Medicine

In recognition of the problems posed by an aging population, many key participants in the health care sector are beginning to assess their current and future role in caring for older persons. The federal government, a major payor of nursing home care for the elderly, has recently invested large sums of money in the search for alternatives to institutionalization. A large number of states and private foundations are also experimenting with alternative approaches to avoid or postpone unnecessary nursing home placement.

The growing number of elderly patients in acute-

care hospitals is forcing these institutions to reexamine their role in the care of the aged and to reorient programs toward the long-term medical, rehabilitative and social needs that are linked to acute illness. In response, hospitals are exploring linkages with community service organizations and expanding their services into new areas. Using state, federal, and foundation funding, hospitals are beginning to coordinate or sponsor a wide array of institutional and community services for the elderly.

Finally, many private investors are now considering the array of new substitutes for acute hospital and nursing home services. Home care, in particular, is a rapidly growing market that has attracted the interest and financial support of such major corporations as American Medical International, Union Carbide, Johnson and Johnson, Upjohn, and Baxter Travenol. Approximately 5,000 home health agencies are in operation across the United States offering services ranging from medical and nursing care, to personal care assistance, to pre-mixed intravenous antibiotic solutions and kidney dialysis.

These changes in the financing and delivery of care for the aged imply that organized medicine will be under increasing pressure to assess its current and future role in caring for the aged who without question will constitute a larger percentage of many physicians' patient load. A major policy issue for the AMA is delineation of its role in educating the profession and the public on the multiple chronic afflictions affecting the elderly, and the socioeconomic implications involved in caring for this population. The development of effective and innovative approaches to the acute and long-term care health problems of the aged by organized medicine will serve to assist the individual physician in treating his or her aged patients, and assure physician involvement in the coming debate on how to maintain the aged in the best possible health with available funds.

Proposed AMA Activities

The following activities will be undertaken by the Board of Trustees to direct AMA's ongoing assessment of issues associated with caring for an aging population.

Public and private sector initiatives in alternate approaches to financing and delivering acute and long-term care services to the elderly will be monitored and evaluated, including experimental efforts underway or already completed. Among the specific areas to be addressed are the following: (1) Private sector approaches for financing and delivering health and long-term care services for the aged. (2) Alternative medical technologies and delivery mechanisms aimed at reducing the costs associated with the care of the very old and terminally ill. (3) Home health and other community services designed to reduce utilization of acute-care hospitals by the elderly. (4) Public and private sector experiments with alternative service delivery approaches to avoid or postpone unnecessary nursing home placements.

Detailed reports to the House will be developed by the Board for each of these areas. Special emphasis will be given to issues of particular importance to practicing physicians and organized medicine. Each

report will identify segments of the problem area for which satisfactory solutions appear to be in place, those where some effort is being made but without total success, and those where solutions appear to be lacking.

In addition, a significant part of AMA Medicare policy development, of course, relates to the care of the aged, as does some Medicare policy. The aged are major users of the health benefits provided by these programs, including hospital, physician, home health, nursing home, and hospice care. Also, the House of Delegates has adopted policy on several other issues related to aspects of caring for aged. Policy in all these areas will be explored for overall impact in developing policy specifically related to the aged.

Throughout this process, the Board will be working closely with and will rely heavily on advice from appropriate AMA councils, commissions, and committees. Each set of proposed solutions will be analyzed in terms of its potential impact on the health care delivery system and its consistency with AMA policy. New Association policy directions for consideration by the House of Delegates will be developed as needed.

In view of these ongoing and proposed activities, the Board is of the opinion that the establishment of an ad hoc committee on aging is not appropriate. The Board recommends, therefore, that this report be adopted in lieu of Resolution 85 (A-83).

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Cardiac Arrhythmias Without Organic Heart Disease

CHARLES E. KOSSMANN, M.D., Editor

DAN GIFFORD, M.D.
(Resident Physician)

A 27-year-old white man was admitted to a local hospital for retrosternal chest pain while jogging. The pain was like "a blow to the chest," of brief duration, radiating to the left shoulder, and accompanied by diaphoresis and faintness but not nausea, vomiting, or syncope. An electrocardiogram was unremarkable except for frequent ventricular premature complexes, and the serum creatine phosphokinase and its MB fraction were normal. An echocardiogram disclosed no valvular or other abnormalities. An exercise tolerance test including thallium scan resulted in a large number of ventricular premature complexes with the "R on T phenomenon"; no ST segment shifts or perfusion defects were detected. After three days he was transferred to the University of Tennessee Hospital for further evaluation.

He had no history of diabetes, hypertension, or rheumatic heart disease, and was taking no medicines except for 200 mg of caffeine prior to jogging. He did not use cigarettes or alcohol and jogged 16 miles every other day, lifting weights on alternate days. His family history was negative and a review of systems was noncontributory.

The initial blood pressure was 110/60 mm Hg, and the pulse rate was 55 beats per minute. Both the cardiovascular examination and the physical examination generally were unremarkable. Initial laboratory tests were within normal limits. Except for an occasional ventricular premature complex (VPC), the electrocardiogram was normal and telemetry monitoring and a second exercise test failed to demonstrate any arrhythmias. He was advised to discontinue caffeine in any form, and was discharged.

Approximately one week later he was readmitted to the local hospital for another episode of chest pain, where cardiac catheterization disclosed normal coronary arteries but frequent VPCs which interfered with measurement of ventricular filling. On one subsequent occasion five consecutive beats of ventricular ectopy were noted for which sustained release procainamide and digoxin were prescribed. Once again he was transferred to the University Hospital, where multigated isotopic angiogram (MUGA) revealed a left ventricular ejection fraction of 66%. Electrophysiologic studies, including extra stimulus testing, were within normal limits; no repetitive ventricular forms were induced by single or double extra stimuli.

The discharge diagnosis was premature ventricular contractions without organic heart disease. He was discharged on no medicines.

DAVID M. MIRVIS, M.D.
(Professor of Medicine, Cardiology)

This case represents one end of a broad spectrum of cardiac arrhythmias in patients without cardiac structural disorder. Arrhythmias in normal subjects represent an extremely common and important problem, wherein incorrect decisions may lead to loss of a sense of well being, restrictions from a normal lifestyle, and initiation of therapy that may make asymptomatic people symptomatic.

With regard to this patient's history, it was clear to me and to his own physicians that what happened while he was jogging was dramatic. He had run only one or two miles of his usual 16-mile jaunt when he felt like he had collided with a telephone pole. He became extremely anxious, and was upset further by the fact that no car would stop to help him. Finally, he meandered into a house whose owner saw to it that he got to the hospital. Both the first and second episodes were highly suggestive of anxiety and hyperventilation following chest pain of unknown cause.

Everything from here forward is going to be based on the assumption that his complaint was noncardiac both times. I would like to present information on the frequency with which complex ectopy is seen in normal people, and data showing its natural history, and discuss the variables that may potentially induce ectopy in patients with or without heart disease.

Ventricular ectopic activity (VEA) is an extremely common problem encountered in daily practice. First, VEA is itself quite common; its frequency increases with age, and it is particularly frequent in diseases associated with ventricular scarring, which may be of ischemic, hypertrophic, or inflammatory origin. Coronary

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Presented Dec. 7, 1983.

atherosclerosis per se does not increase the incidence of severity of ectopy, i.e., the presence of coronary artery obstruction without antecedent infarction does not correlate with its presence or severity.

Second, ectopy of identical degree can be precipitated by various mechanisms. Ectopy can be precipitated and/or aggravated in many people by exercise. This is often considered to reflect exercise-induced ischemia, but it is not necessarily so. It may reflect increased sympathetic activity, or it may reflect an electrophysiologic response to increased heart rate alone without any metabolic aberration. Thus, it is important to recognize that electrocardiographically similar arrhythmias may have various causes and significance. The electrocardiogram is only a marker; it is the patient that needs to be evaluated and treated.

Third, ectopy can occur in a great many conditions, perhaps most frequently in otherwise normal people, as in today's case. Coronary artery disease has received the most attention because it is here that ectopy is often ominous. Mitral valve prolapse has also been associated with a high incidence of ectopy, and also occurs in cardiomyopathy, rheumatic disease, and numerous other syndromes. Cardioactive drugs may be the inciting factor rather than the cure.

Ectopy in Normal Persons

Perhaps the most complex management problem is that posed by our patient today, i.e., the otherwise healthy patient with complex ventricular ectopy. There are many problems to be overcome before deciding how to manage such patients, including the determination of the frequency of ectopy in normal persons, the natural history of such "normal" subjects with ectopy, and the underlying mechanism for the ectopy in such persons.

Ventricular ectopy of both simple and complex grades is common in overtly healthy subjects. In one study of 50 medical students, 50% had ventricular premature extrasystoles.¹ Another important study, derived from Framingham data,² compared normal people with patients who have mitral valve prolapse by either one-hour or 24-hour ambulatory electrocardiography. Approximately 15% of the patients without prolapse had, in the 24-hour period, Lown grade IV ventricular ectopic activity (two or more consecutive PVCs); 42% had frequent ventricular premature beats. Thus, clinically normal subjects

do have ectopy, and in some instances complex ectopy; this complex ectopy does not per se indicate heart disease. Thus, the first lesson I should like to impart is that finding PVCs, no matter how complex, whether on a routine electrocardiogram or on ambulatory monitoring, does not mean that the patient has heart disease, and does not necessarily mean that treatment is needed.

What is the natural history of these patients? In numerous studies, the prognosis of subjects with ectopy, simple or complex, in the absence of overt cardiac disease is excellent. Kennedy et al³ studied 69 such patients for from 2.8 to 9.6 years; 53% had couplets and 15% had ventricular tachycardia. Only one cardiac and one non-cardiac death occurred, a survival rate significantly better than that predicted for the population as a whole. Thus, complex ectopy is not a poor prognostic finding. The presence of heart disease, the type of heart disease, and its temporal relationship with the arrhythmia, are all prognostically important.

Sudden death, presumably due to cardiac arrhythmias, does, however, occur in normal persons. In 29 cases reported by Maron et al,⁴ 28 had structural heart disease documented at necropsy, although in only seven was cardiac disease suspected during life. A similar conclusion may be derived from many other series. Thus, in the absence of heart disease, sudden death is rare, and potentially fatal disease is often not detected. It is thus important to evaluate patients comprehensively for structural or physiologic heart diseases. Common diagnoses often missed include coronary artery disease, hypertrophic cardiomyopathy, and long QT interval syndromes.

Multiple mechanisms may be operative in causing such arrhythmias. First, there may be subclinical heart disease whose only manifestation is ventricular ectopy. Some do have coronary disease; in patients reported by Kennedy et al⁵ with ectopy and with risk factors for atherosclerosis but without other symptoms, 25% had angiographically documented coronary atherosclerosis. Those investigators also reported a high incidence of hemodynamic abnormalities (86%) in clinically normal persons with ectopy. Similarly, Strain et al⁶ reported abnormal right ventricular endocardial biopsies in 16 of 18 patients with spontaneous ventricular tachycardia or fibrillation but without overt heart disease. Abnormalities included evidence of cardiomyopathy, myocarditis, vasculitis, and/or ventricular dysplasia.

Thus, many do have a subtle, subclinical form of heart disease.

In many, however, it is environmental factors that precipitate the arrhythmias. Known precipitants include psychological stress, antiarrhythmic drugs, caffeine and other stimulants, and alcohol. Caffeine may have contributed in this case, since its sympathomimetic effects are well known. They probably result from caffeine's inhibiting phosphodiesterase, the enzyme that degrades the beta-adrenergic messenger cyclic AMP, and increasing plasma catecholamine levels. Both atrial and ventricular arrhythmias, including ventricular tachycardia, may be provoked by caffeine.⁷ In many cases, these external factors can be removed, resulting in resolution of the arrhythmia.

An Approach to the Patient

Given this information, what do we do with the patient with ventricular ectopy? Though I will deal mostly with ventricular arrhythmias, my remarks apply as well to any arrhythmia.

First, an accurate diagnosis of the type of arrhythmia is needed. The most common diagnostic method is a single monitor lead in a coronary care unit. From it one can then progress to the standard 12 lead electrocardiogram with at least three leads recorded simultaneously, to special precordial leads that are particularly sensitive to identify P waves, to intracardiac electrodes, the last of which can be used to define sites of origin of various arrhythmias by provoking them (EPS-electrophysiologic study). Finally, a therapeutic trial may be undertaken by giving a drug and seeing what happens. This should be done only to patients who are in extremis, where the risk of delay required for an exact diagnosis results in a risk to the patient.

One problem with determining an accurate diagnosis is that ventricular ectopy tends to be episodic, and may occur only during certain activities, at only certain times of day, or under certain kinds of stress. The routine electrocardiogram is recorded in about 30 to 45 seconds, an extremely small sampling of the patient's lifetime. In general, the more severe the arrhythmia, the more episodic it will be. We thus have a great likelihood of missing paroxysmal ventricular tachycardia using routine electrocardiograms. Thus, routine electrocardiogram is not a good method of detecting ventricular arrhythmias, particularly the complex but episodic ventricular or atrial arrhythmias. Ambulatory monitoring for at least 24 hours is the minimum requirement for detecting

or classifying ventricular arrhythmias in a particular patient. Another problem is that many ventricular arrhythmias may be inducible by activities the patient doesn't ordinarily do, one of them strenuous exercise. Patients without ventricular arrhythmias at rest or during routine ambulatory electrocardiography may develop ventricular tachycardia during exercise.

Most significant arrhythmias will be detected only during prolonged ambulatory monitoring, and more than one 24-hour period may be needed to detect all abnormalities. The number of subjects that will have abnormal rhythms inducible or detectable only on exercise is reasonably small, perhaps in the range of 10% to 15%, though not a clinically insignificant number of people. Additionally, this finding is particularly important because we are dealing with rhythm disturbances that are potentially life-threatening. A complete evaluation would require not only ambulatory monitoring but also exercise testing in an attempt to provoke or to identify the most complex grade of arrhythmia that any given patient will have.

The next question is, "Does the patient have heart disease?" As noted above, there is a wealth of evidence suggesting that heart disease is a major determinant of the clinical significance of a cardiac arrhythmia. Determination of the presence or absence of cardiac disease must include, at the minimum, a complete history and physical examination, and a 12-lead electrocardiogram to quantitate the QT interval and other measurements. In addition, we routinely perform a two-dimensional echocardiogram to assess wall thickness, ventricular function, and valve structure. We also recommend cardiac catheterization in patients with symptoms suggestive of or with significant risk factors predisposing to coronary artery disease.

Whether heart disease is present or absent, a search for reversible precipitating factors should be undertaken. In patients with disease, drug toxicity and electrolyte imbalance, including abnormal potassium and magnesium levels, are common. Antiarrhythmic drugs and digitalis glycosides may exacerbate arrhythmias even when serum levels are within the "usual" therapeutic range. Thus, a high index of suspicion is appropriate. In patients both with and without disease, a history as to coffee and alcohol use should be

(Continued on page 469)

Healthy Children and Health Departments

FREDIA S. WADLEY, M.D., MSHPA

The county health departments in Tennessee offer a variety of services for all age groups. Since the Healthy Children Initiative is not only focusing on services for children but also on coordinating public and private resources, physicians across the state have requested information on various programs in order to better utilize health department services for their patients.

The following capsule descriptions are intended only to remind physicians that these services are available at all health departments. Since manpower resources in the various counties vary tremendously, physicians should contact their own county health department for definitive information about services provided. Some health departments may be unable to provide maximal service in all programs, while others have additional services not covered below.

Immunization. Diphtheria-pertussis-tetanus (DPT) and oral polio vaccine (OPV) at 2, 4, 6, 15 months (or 18 months if not given with measles-mumps-rubella [MMR] at 15 months), and 4 to 6 years; diphtheria-tetanus 10 years after preschool booster; MMR at 15 months. Physicians should report suspected or documented cases of these vaccine preventable diseases to their county health department in order that investigations and control measures might be implemented by local, state and regional staff.

Well Child Inspections. Public health nurses have completed a course in physical assessment, and have skills enabling them to measure and plot to determine growth pattern, do hematocrit and give vitamins and iron according to a protocol, perform a general physical assessment, which includes vision, hearing, amblyopia, scoliosis, blood pressure and developmental screening as appropriate for age, counsel on nutrition, parenting, safety, and child care, and make appropriate

medical and social referrals. Tuberculosis skin tests are applied at 15 months, and a hemoglobin electrophoresis is done on children at risk for sickle cell anemia. Visits during the first two years are made on the same schedule as immunizations (with an additional one at 12 months) and thereafter, at 2½, 3, 4, 5 to 6, 11, 14 and 17 years.

Early Periodic Screening, Diagnosis, and Treatment (EPSDT). Nurses perform these periodic screening assessments on Medicaid-eligible children. A total of 18 visits are now allowed: two for 0-4 weeks, three for 4 weeks to 6 months, two for 6 to 19 months, three for 19 months to 5 years, five for 5 to 21 years, and three additional surveillance visits. The EPSDT reimbursement rate has been increased, and more private physicians are now providing this service in their offices.

Women, Infant, and Children Supplemental Food Program (WIC). WIC provides nutritional counseling and food vouchers for prenatal and postnatal women, infants, and children who qualify according to financial and medical guidelines. (Davidson and Dyer counties have a Commodity Food Program and Shelby has this plus WIC.)

Child Passenger Restraint Loaner Program. Almost all health departments now lend infant and toddler seats when parents cannot afford to purchase them. A deposit of \$5 is usually required.

Speech and Hearing. This provides hearing assessments, medical evaluation and treatment, surgical procedures, and hearing aides for economically eligible children. Physicians can refer children to the health department for audiologic and impedance testing.

Crippled Children Service (CCS). CCS provides medical evaluations and treatment for children under 21 years of age with chronic handicapping conditions (orthopedic, neurologic,

From the Tennessee Department of Health and Environment, Nashville, Dr. Wadley is chief medical officer of the TDHE.

cardiovascular, endocrine, renal, etc.), hospitalization and convalescent care, and special devices and equipment. Refer patients to the health department for financial and medical eligibility determination. Services are provided at CCS centers.

Dental. Many preventive services are provided in schools. Clinical care services for children often depend upon community dental resources as well as health department dental manpower. The program primarily serves Medicaid recipients, Head

Start participants, children receiving free lunches at school, and emergency indigent cases.

An Infant Follow-Up Program is also being developed at each health department as a part of the Healthy Children Initiative and as a supplement to the services now available. For county-specific details about infant follow-up and all other services, contact your county health department. If you see children in your practice, the health department can often be beneficial to you and your patients.

Medical Grand Rounds . . .

(Continued from page 467)

obtained, and trial of abstinence may often be diagnostic. Psychologic stress may precipitate or aggravate cardiac arrhythmias; these may be chronic or acute problems related to school, work, or family environments.

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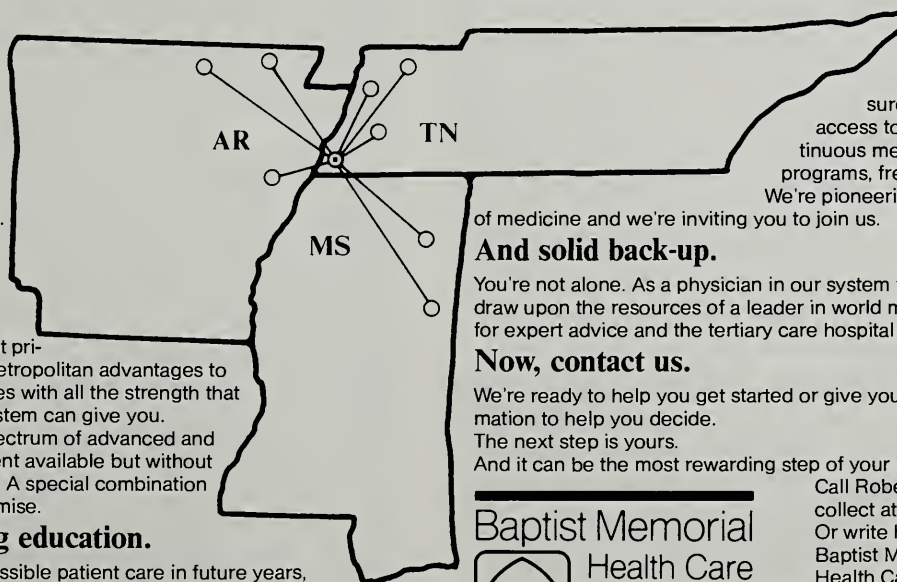
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A Leader in World Medicine

Geriatric Abuse—Out of the Closet

CURTIS B. CLARK, M.D.

The purpose of this series of articles is to present geriatric abuse as we have finally accepted it—as a fact of life. In the first presentation its prevalence, proposed etiologic causes, and psychosocial sequela will be demonstrated. The second in the series will present the formation and utilization of a Geriatric Abuse Intervention Team (GAIT) in a Family Practice training setting, and in the third actual cases will be presented in which reasonable solutions have been brought about through the use of an interdisciplinary GAIT.

On April 21, 1980, a congressional hearing was held by the Subcommittee of Human Services concerning domestic violence against the elderly. During the opening of the hearing Ms. Geraldine A. Ferrara, who had served in the Assistant District Attorney's office in the Queens County District Attorney's office, and who had implemented the "battered spouse legislation" and prosecuted cases of child abuse while in that office, summarized the magnitude of the problem of geriatric abuse.¹ Her opening remarks are an accurate statement concerning this problem: "At the same time, I urge the Congress, the social service providers, and American families not to overlook this serious problem. Statistics indicate that domestic violence against senior citizens is occurring with alarming frequency and it is increasing. I am concerned that the failure to improve services for these victims will only increase our nursing home population and increase the numbers of senior citizens who are physically and mentally damaged."¹

A study conducted by Legal Research and Services for the Elderly indicated that the typical victim of domestic geriatric violence was a frail 75-year-old woman; 84% of the abusers were relatives and 75% of the victims lived with their abusers.¹ A University of Maryland study con-

cluded that domestic violence is more likely to occur among low and middle income families.¹

Some 20 to 25 years ago our awareness of child abuse was brought to the forefront. Today we stand hopefully on the threshold of being alerted nationally to the scope of this problem. During the latter part of the 1970s the problem of geriatric abuse was uncovered by the pioneer work done by the University of Maryland and the University of Michigan. These studies indicated that like spouse battering and child abuse, elder abuse also occurred in families.²

Investigators have documented hundreds of horror stories of repeated physical battering, sexual abuse, intentional overmedication, psychological torment, financial exploitation, and forced confinement of the elderly by their own families. There have been many reports that elderly abuse is serious and growing, but because the thought is so repulsive, many refuse to accept this as a possibility, and the subject is ignored.³ The incidence of geriatric abuse of some type or combinations of abuse occurs in approximately 10% of persons over 65 years of age. Data suggest that in America we have from one-half million to one million cases of abuse occurring each year.

Generally there are five types of accepted abuse in the elderly, which include physical abuse, including sexual abuse; passive neglect; active neglect; psychological or emotional abuse; and material or fiscal abuse. Passive neglect is demonstrated when an elderly person is not turned in bed, permitting decubitus ulcers to occur. Active neglect occurs when a patient has had certain needs or medications withheld that are needed for daily living.⁴ Many of the abused elderly are like children—frail, dependent, and vulnerable. Admitting that they have been abused is to admit they have failed as parents.² It is difficult to admit even to themselves that their own offspring would commit such an act, much less admit that such had occurred to an outsider. The elderly are very reluctant to seek help, fearful

From the TMA Long Term Health Care Committee. Dr. Clark is with the Family Practice Center, Department of Family Practice, University of Tennessee Center for the Health Sciences, Jackson.

FIGURE 1

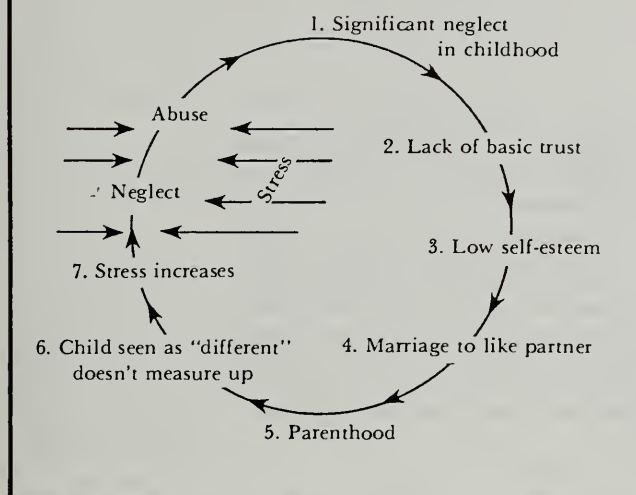
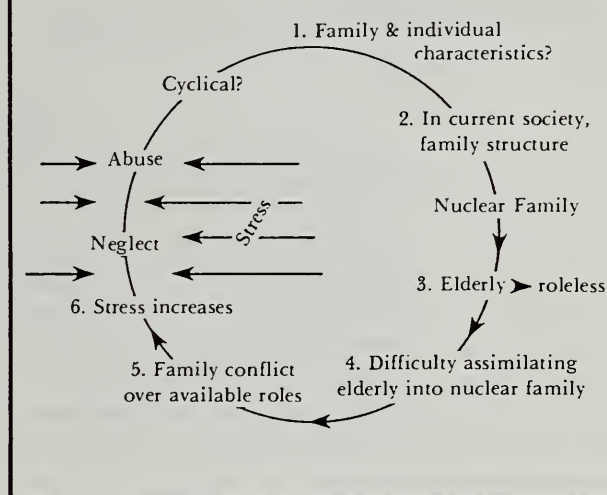
CHILD ABUSE
OPERATIONAL DEFINITION

FIGURE 2

ABUSE OF ELDERLY
PROPOSED OPERATIONAL DEFINITION

that will place them in greater jeopardy for more abuse. Many elderly have no place to go and fear leaving their home and security because they have no other alternative available.³

William Shakespeare wrote 475 years ago about the "King Lear syndrome," as we write about the "granny bashing" syndrome today. Shakespeare wrote about the same type of conditions that many of the grandparents are being subjected to today.¹ At present there is no proven operational definition for "geriabuse." There are four explanations given as to the operational or causative factors. There may be developmental disorders in the caretaker and vulnerability and dependency of the victim. There may also be situational crisis-induced factors or socio-environmental conditions.⁴

There is a generally accepted operational definition as it relates to child abuse (Fig. 1). During childhood there is neglect and inadequate parenting that will lead to lack of basic trust and low self-esteem. Later in life the person will enter into marriage of a like partner. When parenthood is achieved and the child is seen as "different" or doesn't measure up, this sets the stage for abuse. As stress increases then there is the breaking point at which the child is neglected and abused.⁵

There has been proposed what seems a very reasonable chain of events that brings about abuse of the geriatric patient (Fig. 2). The caretaker may have been abused as a child where violence and neglect was the normal mode of behavior. In

our current society the elderly may have to be brought into the nuclear family that has evolved after the industrial revolution. The person may be looked upon as nonproductive and roleless, being a burden rather than a contributor. With this difficulty the parents have to give up their independence and conflict arises as the role reversal takes place. Then some psychosocial or economic stress occurs with neglect and abuse the final result.⁵

Eleven states have protective service laws that require anyone who suspects elderabuse to report such instance to an adult protective central office.³ These hideous acts have obviously been with mankind throughout the ages and only within the past few years have we as a society begun to face the issue. It is mentioned in Ephesians 6:2, 3, and I quote: "Honour thy father and mother; (which is the first commandment with promise;) That it may be well with thee, and thou mayest live long on the earth." 

Acknowledgment

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EKG of the Month

W. BARTON CAMPBELL, M.D.

A pregnant 28-year-old woman admitted to St. Thomas Hospital for evaluation of "dizziness" gave a history of "rheumatic fever" at age 5, and had been told she had a heart murmur. Ambulatory electrocardiograms had disclosed only intermittent sinus tachycardia at peak rates of 120/min.

At admission, blood pressure was 100/70 mm Hg, pulse 80/min and regular. There was a prominent first heart sound, but no rubs, murmurs, gallops, or clicks were audible in the standing, squatting, or supine positions. Her chest was clear to auscultation, and pulmonary function studies were normal. Gallbladder study showed a single large gallstone, and a two-dimensional echocardiogram showed no abnormalities. Thyroid function studies showed mildly elevated thyroid binding globulin of 42 $\mu\text{g/ml}$ (normal 11 to 26 $\mu\text{g/ml}$), and she appeared euthyroid with measured and calculated free T_3 and calculated free T_4 within normal limits. An electrocardiogram was obtained (Fig. 1).

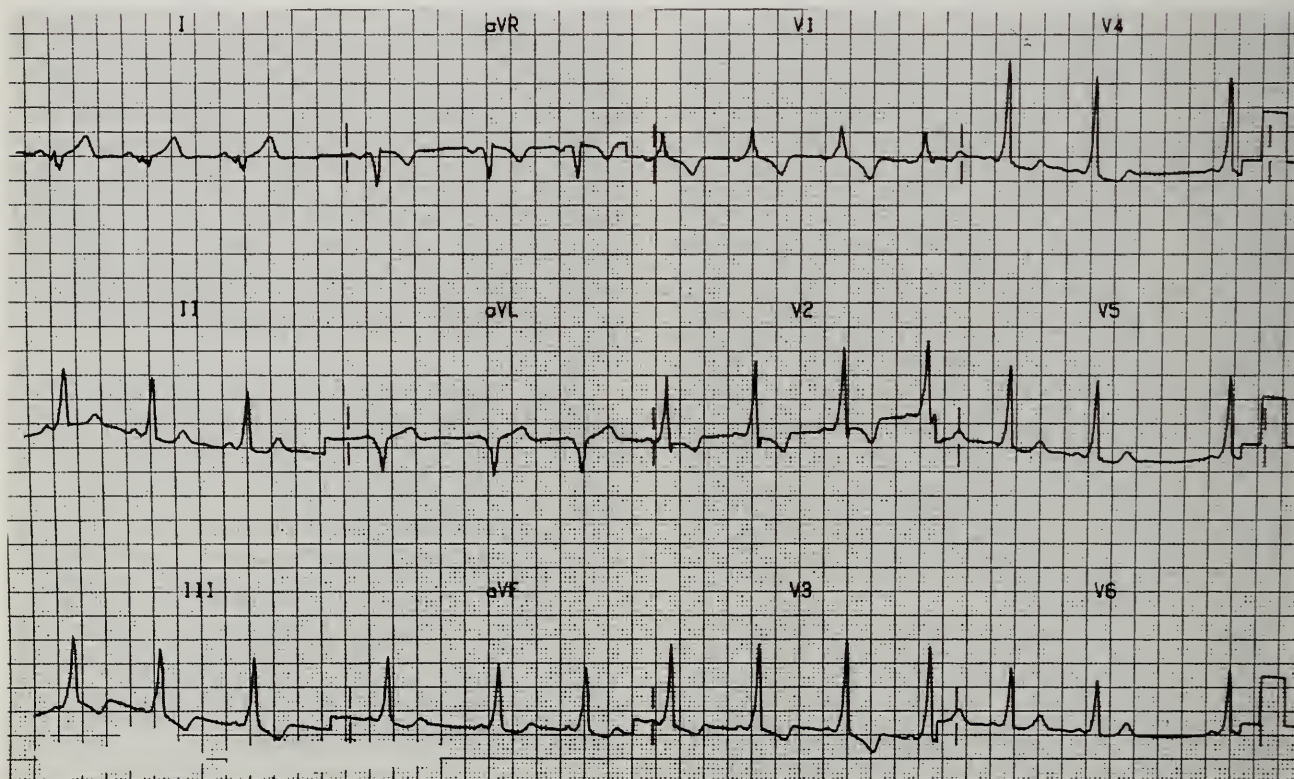


Figure 1

Discussion

This tracing shows sinus arrhythmias at an average rate of 85/min. The QRS complex is wide, with a duration of 120 msec, whereas the PR interval is short at 0.12 seconds (120 msec). The initial portion of the QRS complex is slurred. The

T waves are inverted in leads V_1 through V_3 , and the ST segments are sagging in leads V_4 , V_5 , and standard lead III.

The widened QRS, slurred initial forces, relatively short PR interval, and abnormal repolarization are all compatible with preexcitation.¹ Preexcitation syndrome occurs when portions of the ventricle are electrically activated earlier than would be expected if the impulse travels solely

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

by way of the normal atrioventricular (AV) conduction system. It implies the presence of an accessory AV conduction pathway.

Preexcitation was first described in 1915, and a distinct clinical syndrome of short PR interval, "bundle branch block," and paroxysmal tachycardia was described by Wolff, Parkinson, and White in 1930.^{2,3} It is now known, of course, that these patients do not have bundle branch block, but have a normal intraventricular conduction system with normal PJ interval. The term "Wolff-Parkinson-White syndrome" is used for those patients who have paroxysmal tachycardia with preexcitation as described by Wolff, Parkinson, and White. Paroxysmal tachycardias occur as the anomalous AV pathways allowing for ventricular preexcitation also allow for a reentry or circular movement of the electrical impulse between atria and ventricles.

The initial slurred portion of the QRS complex has been referred to as a delta wave (resembling one side of the Greek letter delta). When the posterior portion of the left ventricle is preexcited, the QRS configuration is commonly directed anteriorly, causing an R wave in leads V_1 and V_2 . This type of preexcitation is referred to as "Type A."⁴ Conversely, when anterior portions of the heart are preexcited, the initial QRS forces and delta wave tend to have a posterior direction, creating QS waves in V_1 and V_2 ("Type B").

It is important to recognize that preexcitation can not only mask a myocardial infarction, but can also cause a pattern that simulates (as in this patient) myocardial infarction. This tracing shows rightward forces with a QrS pattern in standard

lead I, and a QS pattern in aVL, which might erroneously be interpreted as showing a superior-lateral infarction. In this patient, the pattern of superior-lateral infarction is simulated by preexcitation of the ventricle.

Preexcitation is not an acquired abnormality, and has no relationship to antecedent rheumatic fever. This patient had no evidence for rheumatic heart disease on examination or echocardiography.

It is important to keep in mind that the pattern of preexcitation implies the presence of an accessory AV pathway. The P to delta interval, presence or absence of delta wave, and QRS width may vary in relation to the location of the accessory pathways, the intra-atrial conduction time, and the time required to traverse the AV node and His-bundle branch pathways. These relationships determine the configuration of the electrocardiogram in preexcitation, and conduction over the AV node may be affected by changes in autonomic tone. Thus, preexcitation may become clearer when AV nodal conduction is slowed by carotid sinus massage, or it may diminish when AV nodal conduction is accelerated by various pharmaceuticals or exercise.

IMPRESSION: Preexcitation—Type A. 

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Who's In Charge Here?

J. KELLEY AVERY, M.D.

Case Report

A 29-year-old man was brought to the emergency room of a metropolitan hospital where the nurse obtained a history from family members that the patient had ingested "three beers and some pretzels" one hour earlier. Thirty minutes later he began to complain of cramping abdominal pain, the pain so severe that the patient "writhed on the floor in agony." The past history was entirely negative. No history of recent illness was obtained, and alcohol and drug use was denied.

Dr. A, an emergency room physician, saw the patient and observed that he was breathing deeply and rapidly and was unable to speak. His color was good, and because of his obvious difficulty with respiration, Dr. A quickly did a Heimlich maneuver without benefit. Shortly thereafter, the patient completely lost control, began to thrash about wildly, assaulting everyone present, and appeared to be hysterical. The loud commotion brought Dr. B into the room to be of assistance.

Dr. B told a nurse to "draw up 10 mg of Valium and give 5 mg now" in an effort to sedate this noncommunicative and combative patient and to prevent self-injury. In the confusion, the nurse did not hear "give 5 mg now" and gave the full dosage. A few minutes later Dr. A, not realizing

what Dr. B had ordered, told another nurse to give Demerol 50 mg and Vistaril 25 mg IV. Sedation was now accomplished and both doctors left the patient in the care of the emergency room nurse, with Dr. A planning to order laboratory work and x-rays as preliminary studies of the patient.

Within 10 to 15 minutes, both doctors were summoned stat because of respiratory arrest; Dr. A did an emergency tracheal intubation. Dr. A discovered that the patient had received the medication ordered by each of them and Narcan was immediately given. The arrest was successfully treated although the patient required mechanical ventilator support for several hours. Later it was learned that the trachea had been torn by the emergency intubation requiring surgical treatment and prolonged hospitalization.

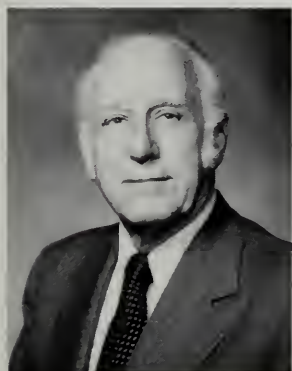
Loss Prevention Comment

In every case there must be a "chief" to coordinate all aspects of management. Subordinate members of the team must recognize this and accommodate their participation in the case to the physician in charge.

Dr. B deviated from the standard of care in failing to recognize Dr. A's role as the physician in charge and in ordering the medication without his knowledge and approval.

Dr. A's order of Vistaril IV was contraindicated according to the *PDR*, which indicates that it is intended only for IM administration. 

Dr. Avery is the medical director of State Volunteer Mutual Insurance Company.



THOMAS K. BALLARD

The Best Medical Care in the World

The United States delivers the best medical care in the world. We have proven through the years that our physicians, nurses, and paramedical personnel receive better training and deliver to our patients a quality of medical care second to none. There are those who would attempt to refute this premise, but all arguments to the contrary fall upon fallow ground.

The technology that we are capable of producing gives us a vast head start over other civilized nations. We are the leaders in most areas of medical practice. For example, the application of computer technology in the field of radiology gives us nuclear magnetic resonance with excellent imaging. Results of studies compared with computerized axial tomography reveal a bright future for this procedure. The advent of liver transplants, heart transplants, and lung transplants presents its own sets of problems. Even though the expense for these procedures is relatively high, how do you place a value on one life?

Advances in the field of antibiotics, with their impact upon infectious diseases, are certainly promising, and research continues in this field. Patient education resulting in patient awareness as to what they can do to improve their health, such as changes in lifestyle and diet, has caused great improvement in the general health of our population, as well as an increase in life expectancy. The use of oncogenes in cancer research is quite promising. The implication of this discovery adds impetus to our increasing knowledge in the field of discovery and treatment of cancer patients. The drop in infant mortality in the United States is further testimony to our great strides in medical care.

Even with all the achievements in research, technology, and techniques, there is still room for improvement. With the cost consciousness of our times I am deeply concerned that funds may not be available to continue improvement in our system of health care delivery. We have seen a drop in research resources, and this may bode ill for future generations. Our efforts should be ongoing to assure the people of our country that we will remain at the top of all nations in delivering to them the best medical care in the world.

Thomas K. Ballard MD

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AUGUST, 1984

editorials

A Health Policy for the American People

The Constitution of the United States is based upon the conviction of its drafters that the least government is the best government; it therefore states specifically that all matters not delegated to the federal government thereby are the business of the several states. The nature of governments, however, is to govern, and of an elected government to divide the spoils of victory among its supporters, and so the federal government of these United States has progressively arrogated

unto itself responsibility for progressively broader areas of the life of its people and meddled not only in the affairs of state and local governments but of its individual citizens as well. That meddlingness has spawned a bureaucracy so massive that it threatens to sink the District of Columbia deep into the Potomac by the sheer weight of its paperwork.

So as not to be unfair, however, I have to add that most of what has come about has done so by default, since it is much easier to be told what to do than to think about it. The average citizen is usually quite content to have his life regulated, or he is until that regulation threatens his own bailiwick. Giving thoughtless attention to his own affairs, he has not considered that his indifference to the prerogatives of others might one day bring about his own eclipse, and that like the taxes to support their promulgation and enforcement, regulations by their very nature eventually proliferate to encompass every single, solitary activity of every single, solitary citizen.

Another characteristic of a bureaucracy is that its policies are determined piecemeal, and its governance is therefore inconsistent and erratic. This inconsistency—indeed, inconstancy—derives from government's continuously changing direction, reflecting the swings in philosophy of administrations and the Congress demanded by a fickle electorate.

What I have said thus far is the long way of saying that though it may not apply to every individual, as a people we get what we pay for. Having suffered the building of the bureaucracy, we deserve to suffer under the weight of its dead hand. It is a lot easier to get there than to escape.

Nowhere has the public schizophrenia been more clearly demonstrated than in the health affairs of this nation. The public's desire to be protected from everything harmful is reflected in the establishment of such agencies as the Food and Drug Administration (FDA). Though the FDA's function is to determine the safety and efficacy of drugs, the public seeks legislative relief from the restraints it has so strongly advocated when one of its pets, Laetrile, for example, is ruled unfit. This ambivalence has led the pendulum to swing in matters of health, as in all other areas throughout history, to excesses in both directions.

It is difficult to determine precisely why or when, in the midst of such a plethora of technological wizardry as the past two decades have wit-

nessed, public disaffection for the medical profession as a whole began. Certainly it was stimulated by meddlesome consumer advocates with their own fences to mend, but the emerging attitude that the public health is too important to be left in the hands of physicians had to have some foundation in medicine's own backyard. It became the perception of at least a substantial and vocal segment of the public that the first concern of the House of Medicine was not the public weal but its own economic advancement. In our current battles over threatened mandatory assignment and fee freezes, the public concentrates only on cost containment, and views escalating professional liability problems as ours alone.

Convinced of the inability, if not also the unwillingness, of the federal government to intervene appropriately in any of the problems confronting medicine and its primary concerns, which have to do, despite public perceptions to the contrary, with the health welfare of our patients and the public generally, in 1982 the AMA (which is neither "it" nor "them," but "us") proposed an innovative and indeed bold approach which it labeled "A Health Policy Agenda (HPA) for the American People." Involving all interested parties of both the private and public sectors, it would seek to formulate a comprehensive, cohesive long-term approach to meeting the health needs of the country instead of the current approach of reacting piecemeal to rapid changes in health care delivery and financing, health manpower supply and needs, education requirements and opportunities, and medical science and research.

Though many of us, including your editor, were skeptical that, given the present climate, the AMA could assemble from the public at large an organism for accomplishing this feat that would be at once widely representative and workable, the House of Delegates as a body agreed that it would be at least worth trying. I am pleased to be able to report to you that after two years of what proved to be a major effort by some of the Association's more statesmanlike members, the HPA has completed Phase I with a statement of principle that was endorsed by the House at its June 1984 meeting. This document will form the basis for a policy statement in Phase II, due for completion in two years.

If nothing else had been accomplished, the involvement of such diverse groups as the American Medical Association, the Business Roundta-

ble, the American Association of Retired Persons, the United States Chamber of Commerce, the Health Insurance Association of America, the Department of Health and Human Services (DHHS), Blue Cross-Blue Shield, the American Dental Association, the United States Department of Defense, and others on the Steering Committee would have been notable. It is even more noteworthy that some 155 organizations are represented on the Advisory Committee, which was formed to assure wide involvement by the public.

Formulation of the Agenda is vested in six work groups charged with conducting fundamental research into the current and future health care environment. In Phase I these work groups developed a set of principles, or broad value statements, to be used as a guide to policy development in Phase II. After principles were developed in the areas of medical science; education; health manpower resources; delivery mechanisms; evaluation, assessment and control; and payment for services, issues critical to the nation's future health were identified, among them funding for biomedical research; evaluation of health care technology and what role cost will play in its availability; minorities in the health professions; the education of caring, competent practitioners and the funding of such education; access to high quality medical care; the manner and form of payment for such care; the role of government; and finally, ethical concerns affecting provision of care.

After a hearing before the Advisory Committee, which reviewed the work groups' material and interacted with their members on the reasoning behind and the statement of principles and issues, each work group, after appropriately modifying its statement, presented a final statement to the Steering Committee, which then forwarded the finished Phase I report to each participating organization. At the termination of Phase II, when specific policy proposals addressing the principles and issues are presented, each participating organization will have a document it can use as a common basis for drafting new or changing existing policies to effect desired changes in the health care delivery system and for responding to social, economic, scientific, educational, and political circumstances as they arise.

The HPA Phase I report was forwarded to members of the AMA House of Delegates and other interested parties in late winter, and was addressed at the June meeting of the House in a

public forum through reports by the Work Group chairmen, and later before a special reference committee, prior to its introduction into the business of the House. Since no action was required on the Phase I report, the House accepted it as information with its endorsement. In answer to criticism that in several instances the principles conflict with AMA policy as established by previous Houses, it was pointed out that the report was strictly a working and not a policy document, that as expected it conflicted in places with policy of every organization involved, that debate in its formulation was often heated, and in fact that any such report could have ever been formulated was in itself truly remarkable.

One of the public members, who has been a legislator and who is vice-chairman of one of the work groups, voiced her enthusiasm for the Agenda with the comment that it is something that could have been initiated only in the private sector, and that the AMA is to be congratulated for doing it. As work has progressed, enthusiasm for the Agenda is growing among the various and often quite disparate groups represented in the work groups and on the Advisory Committee. It is up to this point a statesmanlike effort on the part of the AMA. We, the physicians of the United States, and especially the constituents of the AMA, have the ability to either make it work or scuttle it.

Detractors of the AMA, both outside and within its membership, even including some members of its House of Delegates, have expressed concern that in acceding to wishes and demands of other organizations the AMA is dividing and even selling out the House of Medicine. To the first I would observe that it is unclear to me how it is possible to further divide such a shattered organism. American medicine consists of a quarter of a million individualists with a variety of bonds to each other, most of them so tenuous that the slightest whiff of an ill wind is likely to shatter any one or all of them. As to selling out the House of Medicine, I should like to examine what that house consists of, what its purpose is, and who is selling it out, not necessarily in that order.

Medicine is something one takes to restore his well-being when it is disturbed. Its only function is to heal. The medical profession is an elitist group having the knowledge required for the healing of the laity, the group without that knowledge. Primitive societies believed (and still believe) it to have been bestowed by the gods on

that elite, who were originally priests or shamans, for the good of mankind. However acquired, it has always been considered as attained only for healing the sick. The House of Medicine consists of those who possess that knowledge, and the divider of the House of Medicine is therefore any individual or force that would use medicine for any other purpose than healing, such as, for example, personal gain; contrariwise, whoever would promote medicine's primary purpose of healing, even though in conflict with the interests of some of medicine's self-extracted fragments, is not selling out its house, but building it up. Without implying that the physician is not entitled to fair compensation for his services, this is to say that the House of Medicine is sold out by anyone who would consider his economic situation, however grave, above commitment to his patients.

Though word of the HPA is spreading slowly, not only to the public but within the profession itself, the HPA is coming to be viewed as a return by the profession, as reflected in the AMA membership, to its rightful heritage, which the public perceives medicine to have abdicated as a prodigal gone awhoring after false gods. It will be time enough in two years to act on new policy statements of the Agenda. In the meantime, though, as our representatives wrestle with the proper content of those statements, all physicians have also to consider where their own commitments lie, and communicate their concerns to those representatives. They deserve our support, not our derision.

In commenting on his call to commitment in his inaugural address, which I shall publish, AMA President Joseph Boyle, M.D., explained that the difference between enthusiasm and commitment is exemplified by the Kamikaze pilot who had flown ten missions. We have an opportunity to demonstrate to the public to what extent we are committed, whether our commitment is to our calling or to ourselves, whether we are indeed a profession, committed to the welfare of its laity, or a business, and whether we therefore are deserving of the trust and devotion of that laity, or require regulation and constant monitoring by the Federal Trade Commission. Though it is more comforting in adversity to think of our fate as lying in the hands of the Congress or the administration and its agencies, that is in fact a cop-out.

Our future lies in no hands but our own.

J.B.T.

Salute to a Friend: Live Forever

I guess until all the talk about a celebration began a few months back I didn't realize that the Great Smoky Mountains National Park is 50 years old this month (today, actually—it was June 15, 1934, that President Roosevelt signed the Proclamation). Since then a quarter of a billion people, 8 million of them last year, have come to what is the most visited national park in the United States. In some ways, 50 years is not very long, but it seems to me that the park has always been there. I guess it was a couple of years or so before that that I was first taken to the park by my parents for a week at Gatlinburg's Mountain View Hotel, the first of what was to become an annual pilgrimage around the first of June to see the rhododendron and eat country ham and biscuits with red-eye gravy and honey.

Land acquisition for the park had begun in 1926, and on its activation the Civilian Conservation Corps began improving some 600 of the thousands of miles of trails used by the settlers. Roads, and later campsites, were constructed to make the park usable by the public. The pursuit of happiness for the many, though, as it is so often, if not usually, was bought at great cost to the few.

By the mid-1800s the frontier had moved west, leaving the Appalachian mountain folk, particularly the ones in the Smokies, stranded. Those resourceful people eked out a bare existence from the soil using homemade tools and necessities. Disease was rampant, and death often came early, but the remainder were uncommonly hardy. Generations lived in total isolation from the outside world, and when the journalist Horace Kephart journeyed to the Smokies in 1904, he commented that he was unable to find any current article or book describing the land or its people. Loggers arrived at about that time and overcut 65% of the land, scalping watersheds of ancient hardwood forests and opening them to erosion. Only its inaccessibility, which led to bankruptcy of many of the firms, saved the rest. Much of this forest wound up eventually, and with many difficulties, in the park, though for a long time the very existence of the park was precarious.

Generally speaking, the mountaineers cherished their isolation, and surrendered it grudgingly. Homesteads which had sustained generations of these hardy folk were forfeited, usually,

to be sure, with a provision allowing the current generation to live out its days there, and sometimes for their descendants to farm the land even after it became public domain.

I cherish memories, amassed over a period of 40 years, of the splendor of rhododendron and mountain laurel deployed along rushing streams, on the grassy balds, and up the Chimneys; of wading in and dozing beside sparkling mountain cascades; of the dazzling red and gold of autumn woods; and of snow-covered evergreens adorned with gleaming icicles. Times change, and in this day of massed auto-campers the park service has expended its energies and its limited and presently dwindling funds improving roads and campsites at the expense of the trails, many of which, except for the most popular, having become inaccessible from washouts and overgrowth by underbrush. As the most popular and most accessible of all the parks, it is overcrowded during most of the year. Isolation and solitude are lost not only to the full-time mountaineers, but to those of us as well who long nostalgically for part-time status.

The park system is falling on hard times, due both to a precarious economy and pressures from land "developers" (read *exploiters*) who lust after its natural resources. Unless Washington can be persuaded to alter its apparent course, dark days are ahead for those who yearn for the joys those resources can bestow in situ. The mountaineers had to pay a price for us to enjoy their riches. Will those riches be reduced to dross by artificial "needs" manufactured for our burgeoning population by insensitive and insatiable schemers? The answer is yes, they will, unless those who love the parks with their magnificent vistas, who believe there is something more to living than endless expanses of glass and concrete, keep alive the vision of such men as Theodore Roosevelt and John Muir who fathered the park system, and Bob Marshall, Aldo Leopold, Harvey Broome, and Benton McKay, who founded the Wilderness Society simply to stop the depredation of the Great Smokies.

Though it would be a travesty to bequeath to our children a world devoid of such natural beauty, even more is at stake—our continued existence. Erosive processes are inhibited by the earth's green mantle, which also produces the oxygen we breathe. The Amazon Jungle is said to produce as much as two-thirds of the world's oxygen, and it is being deforested at an alarming rate not only for mineral and timber resources,

but also for pasture land, which generally requires burning the wood, adding to the burden of carbon dioxide in the atmosphere. This progressive tampering with nature is approaching the point where all animal life is threatened with extinction.

In the Smokies laurel grows to a height of 40 feet, and there are tulip poplars with trunks seven feet thick. In this park is the largest virgin forest in the East. Though a bill has been introduced into both Houses of the Congress that would designate 467,000 acres as permanent wilderness, strong forces oppose the bill and propose a major highway across the southwest portion that would forever scar some of its most magnificent areas. The park contains more than 50 species of fur-bearing animals, 200 species of birds, and more species of native trees than there are in all of Europe. For many animals this wilderness habitat is critical.

Society seems to be in a mood to live for the moment and forget the long term. Preservation of natural areas is one situation that allows living for both the moment and the long term, as one can enjoy it now and also leave it for his children to enjoy. I can think of no other situation where one can have his cake and eat it too. Though we can now, everything has ultimately to be paid for. Many people have paid, and continue to pay, for our parks; the major funding for the Great Smoky Mountains National Park was borne by its previous tenants, the mountaineers and the Indians before them, through their dispossession. It seems to me we owe it not only to ourselves and our progeny, but also to its previous tenants, not to let the Great Smoky Mountains National Park, and its sister parks throughout the nation, perish from the earth.

J.B.T.

The End

The other day a headline in an Indianapolis newspaper opined that viewers of a certain movie, the name of which I forget, would be delighted to see "The End." I thought the writer meant it was a bad movie, but he went on to explain that movies never say that any more—they just fade out. At the end of this one it said so. I hadn't noticed, really, but sure enough action now usually just stops in midscene, and credits just float over the hold, with nary another word. I suppose the makers figure a body will know when the

movie is over. I have never had any problem that way, and so I fail to share the writer's exhilaration.

In the military service, particularly in wartime, you make a lot of friends in a hurry and often lose them the same way. A dentist with whom I shared a good many adventures and a few misadventures, had congenital nystagmus, and should never have been taken into the Army in the first place. One day we cooked up a scheme to use his nystagmus to wheedle a visit to Paris from our airbase on the southern coast of France. We would send him as a patient to the field hospital in Paris, and I would be the medical officer accompanying the patient. Since we would arrive just at the beginning of the long Fourth of July weekend, we would have that time for a lark, and I would then start on a three day pass, which with travel time would give me over a week in Paris. He checked into the hospital and I into the transient officers' quarters in the Ambassador Hotel; I never saw ole Jim again. It seems the medical officers there never had much of a challenge, and they got so interested in Jim's nystagmus they wouldn't let him out of their sight. He was sent home without ever seeing Paris. We exchanged a few letters, and then one day a couple of years later I got one that said he was glad to hear I was home and had landed a housestaff position, and that he was in dental practice with his father. He was closing the book, he said, on that chapter of his life. The End. Maybe so—but maybe not.

Just after I arrived overseas I spent about two weeks in company with the Headquarters Squadron Surgeon of the 40th Bomb Wing in Erlangen, Germany awaiting assignment. I saw him a couple of times after that when he accompanied the Wing Surgeon on an inspection tour of our station. The next time I saw him was about 35 years later when he turned up at an AMA meeting as a delegate from New Mexico. A chapter we thought closed has reopened, and we have become good friends. So have our wives.

If you are anxious to know how a story turns out, you have only to skip to the back of the book, or come in near the end of the movie. That is also frequently tried in real life, but not, I hear, with any satisfactory results. It simply is not given us to see the end from the beginning. Only God can do that.

Every now and then someone gets the notion he has read as far into the story as he wants to go, and closes the book for good before he gets

to the end. This is okay if it is a story someone made up, but there are problems if it is one's own. Though biographies generally end with the death of the protagonist, it is bad form to end an autobiography that way. In addition, some of us believe death does not really close the book, but only ends one chapter and starts another. A writer would never think of starting a new chapter before he finished the one he was working on, as it would just confuse the reader and likely cause him to give up on the book. God, who oversees the writing of our book, might do the same.

Though we are not meant to close out our own lives, a psychiatrist recently predicted that within the next decade or so there will be suicide clinics—not to prevent suicide, but to assist individuals in carrying it out. I must say first that I hope not, and then that a lot of things will have to change pretty quickly, among them the charge to physicians that their mission is to preserve life and not destroy it, though mercy and compassion do require that we close the book when the story has ended. While it is not for the physician ever to end life, neither is he required to prolong dying, which is now not only within our power, but is done every day.

My conclusion from this is that "The End" is in the first situation unnecessary, in the second uncertain, and in the last immoral and illegal. I believe the news writer did not think through his thesis very well.

J.B.T.

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

Sherwood Barefoot, Jr., M.D., Jackson
Chris H. Bratton, M.D., Lexington

HARDIN COUNTY MEDICAL SOCIETY

Thomas H. Ragsdale, M.D., Savannah

HENRY COUNTY MEDICAL SOCIETY

Terry O. Harrison, M.D., Paris

HAWKINS COUNTY MEDICAL SOCIETY

Walter L. Goforth, M.D., Rogersville
Francis Goyeau, M.D., Rogersville
C. C. Johnson, M.D., Rogersville
George M. Testerman, M.D., Rogersville
Lewis Walker, M.D., Rogersville

KNOXVILLE ACADEMY OF MEDICINE

John D. Simmons, M.D., Knoxville

NORTHWEST TENNESSEE ACADEMY OF MEDICINE

Luis L. Wong, M.D., Ripley

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Frederick W. Gourdin, M.D., Kingsport
R. Scott MacDonald, M.D., Kingsport
Robert H. Reiff, M.D., Kingsport
Linda R. Thompson, M.D., Bristol, VA

WASHINGTON-UNICOI COUNTY MEDICAL ASSOCIATION

George I. Spence, M.D., Johnson City
Frederick W. Wampler, M.D., Mountain City
William G. Wood, M.D., Johnson City

(Student)

K. Dwayne Fulks, M.D., Johnson City

WILSON COUNTY MEDICAL SOCIETY

Llewellyn H. Hamilton, III, M.D., Lebanon



Willard G. Glass, age 63. Died May 31, 1984. Graduate of Baylor University College of Medicine. Member of Sullivan-Johnson County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Charles D. Harris, M.D., Hixson
John P. Sheldon, M.D., Signal Mountain
Charles I. Stein, M.D., Chattanooga

personal news

Charles S. Ruark, M.D., Old Hickory, has been certified as a Diplomate of the American Board of Emergency Medicine.

Robert S. Sanders, M.D., director of the Rutherford County Health Department in Murfreesboro, who pioneered efforts to improve the safety of infants and small children in motor vehicles, received the National Transportation Safety Board's Distinguished Service Award.

TMA Members Receive AMA Physician's Recognition Award

Fifty-three TMA members qualified for the AMA Physician's Recognition Award during May 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Robert B. Adkins, M.D., Nashville
Carolyn F. Blackwell, M.D., Memphis
Shelby R. Brammer, M.D., Chattanooga
Robert Buchalter, M.D., Memphis
Edward P. Caldwell, M.D., Memphis
James E. Chapman, M.D., Oak Ridge
Lawrence Tien-Tso Ch'ien, M.D., Chattanooga
Thomas S. Dake, M.D., Columbia
Luu H. Dang, M.D., Germantown
David E. Darrah, M.D., Alexandria
James H. Elliott, M.D., Nashville
William H. Fancher, M.D., Memphis
Theodore A. Feintuch, M.D., Chattanooga
John A. Fincher, M.D., Bristol
Gordon R. Freeman, M.D., Dyersburg
Stephen L. Gammill, M.D., Memphis
Joel F. Ginsberg, M.D., Signal Mountain
Fred Goldner, M.D., Nashville
Al W. Gothard, M.D., Chattanooga
Ronald K. Grossman, M.D., Memphis
Margaret J. A. Halle, M.D., Memphis
Norman L. Henderson, M.D., Lawrenceburg
Michael E. Hildebrand, M.D., Chattanooga
Cary G. Hodnett, M.D., Chattanooga
Yune-Gill Jeong, M.D., Chattanooga
Edwin C. Jordan, M.D., Clarksville
Dilip N. Joshi, M.D., Jamestown

Jennifer S. Knowles, M.D., Memphis
John P. McNulty, M.D., Portland
John S. McNulty, M.D., Cleveland
Augustus L. Middleton, M.D., Jackson
Douglas P. Mitchell, M.D., Nashville
Joseph A. Motto, M.D., Chattanooga
Nabil W. Moukheibir, M.D., Kingsport
Pamela T. Osborne, M.D., Cordova
Frances K. Patterson, M.D., Knoxville
David R. Pickens, M.D., Nashville
Andres A. Ramos, M.D., Nashville
Billy G. Robbins, M.D., Halls
Deborah J. Ruark, M.D., Hermitage
Joseph W. Scobey, M.D., Madison
Jon R. Simons, M.D., Knoxville
Montie E. Smith, M.D., Selmer
Jesus O. Torpoco, M.D., Memphis
Francisco C. Vallejo, M.D., Tullahoma
Luz A. Vallejo, M.D., Tullahoma
James W. Varner, M.D., Chattanooga
Ronald K. Wibking, M.D., Clarksville
Philip G. Williams, M.D., Milan
Robert H. Williams, M.D., Chattanooga
George H. Wood, M.D., Knoxville
William G. Wood, M.D., Johnson City
John K. Wright, M.D., Nashville

national news

From the AMA's Office in Washington, D.C.

Congress Passes Fee Freeze— With Sanctions

With virtually no substantive debate, Congress on June 27 approved a rigidly monitored 15-month physician fee freeze expected to save Medicare \$2.9 billion over the next three years.

The provision, attached to the FY85 budget bill, would require federal monitoring of every physician who did not sign a "participating physician" agreement. It would provide financial inducements for phy-

sicians who signed "participating physician" agreements committing them to assign all claims thereby accepting the frozen Medicare fee allowance as payment in full.

Nonparticipating physicians would be federally monitored. If a pattern of increasing fees to Medicare patients during the freeze was found, the physician could be fined up to \$2,000 or "debarred" (suspended from Medicare for up to five years).

The provision was concocted by Office of Management and Budget Director David Stockman and House conferees Reps. Andy Jacobs (D-IN), Henson Moore (R-LA) and Henry Waxman (D-CA) as a way out of an impasse over Senate resistance to House demands that any physician fee freeze be accompanied by mandatory assignment.

Responding to the committee action, the American Medical Association said that the new program would "intrude into the physician-patient relationship for Medicare beneficiaries" and "is discriminatory toward a law abiding segment of physicians" and "patients who

want to choose their physicians and have a voice in their own medical care.”

The Medicare fee freeze is a major portion of the \$6.5 billion in Medicare cuts included in the budget package of spending cuts and tax increases. Other major Medicare savings came from an increase in premiums and tighter limits on Medicare payments to hospitals. The package was approved 268 to 155 in the House and 83 to 15 in the Senate.

Until the conferees agreed to the new monitored freeze, the fee freeze and the premium increase had been major obstacles to passage of the budget bill. A Senate proposal would have frozen all fees for one year and then continued the freeze for a second year for physicians who didn't agree to accept all claims on assignment.

However, most House conferees were adamantly opposed to a freeze without mandatory assignment and still preferred a previously rejected House proposal tying a fee freeze to mandatory assignment of all inpatient claims. The House conferees wanted, at the very least, to “trigger” a mandatory assignment requirement if certain targets were exceeded.

The Reagan administration had previously indicated that it would accept mandatory assignment if necessary to get the savings from a fee freeze, and Stockman entered the fracas when it appeared the freeze stalemate might kill the larger budget bill. The Budget director called AMA Executive Vice President James Sammons, M.D., and suggested that the AMA, then assembled for its annual meeting, agree to some form of mandatory assignment.

Bluntly informed by Dr. Sammons that mandatory assignment was a non-compromisable issue, Stockman continued to work behind the scenes, reportedly for adoption of a triggered mandatory assignment. Unyielding resistance to any form of mandatory assignment by Sen. Robert Dole (R-KS) and Senate conferees Sens. Max Baucus (D-MT), Lloyd Bentsen (D-TX) and John Danforth (R-MO) led to the development of the alternative.

It will:

- freeze Medicare customary and prevailing fees for all physicians for 15 months beginning July 1, 1984.

- establish a “participating physician” option for physicians who agree to accept all claims on assignment. Participating physicians could increase their billed charges to Medicare and although the fees they receive will remain frozen, the increased billings will be reflected in future fee screen updates.

- permit nonparticipating physicians to accept assignment on a case-by-case basis but monitor each physician comparing current charges to a three-month base period compiled by Medicare carriers.

- fine up to \$2,000 plus the “overcharge” or bar from Medicare any “nonparticipating physician” found to have a pattern of increasing fees collected from Medicare patients.

Other provisions of the budget package would:

- move up to July 1, 1985 the due date for a report on the “advisability and feasibility” of physician DRGs.

- phase in a permanent national fee schedule for clinical laboratories and for laboratory services in physicians' offices. The fees would be set at 60% of the

prevailing charges for the year beginning July 1, 1984.

- limit increases in Medicare's DRG reimbursement in fiscal 1985 to the rate of increase in the cost of the marketbasket of goods and services hospitals purchase.

- retain an expiring provision setting Medicare Part B premiums at 25% of program costs. This provision would increase the premium in 1986 to \$19.10 a month as compared to \$17.70 in current law.

- reject an increase in the Part B deductible.

- increase federal Medicaid payments for some pregnant women and children. The provision is a more limited version of Rep. Henry Waxman's (D-CA) Child Health Assurance (Assessment Program).

- reject an extension of current reductions in federal Medicaid payment to states.

- outline new guidelines for telephone monitoring of pacemakers that would take effect unless HHS issued new guidelines by Oct. 1, 1984; establishing a pacemaker registry within FDA; and requiring HHS to review the appropriateness of Medicare payments to physicians for pacemaker implants.

- call for a physician reimbursement study by the Office of Technology. Objectives of the study—to be completed by Dec. 31, 1985—include suggestions for eliminating payment differences for cognitive and procedural care, increasing incentives for acceptance of assignment, and studying the “advisability or feasibility” of national or regional fee schedules.

DRGs for Doctors May Not Be So Good, Senators Say

Hasty extension of Medicare's diagnosis related groups (DRG) pricing system to physicians might be an easy way out for Congress but could have unintended consequences for the health care system, two influential Republican senators agree.

Addressing a June meeting sponsored by the Government Research Corporation, Sens. Robert Dole (R-KS) and John Heinz (R-PA) suggested that although physician reimbursement changes are clearly called for, extension of DRGs to physicians might not accomplish the desired objectives. And a Health Care Financing Administration official Henry Desmarais, M.D., reported “that his agency is keeping its options open” and, upon the advice of its physician advisory group, is looking at a revised relative value scale as well as extension of DRGs to physicians.

Sen. Dole, who chairs the Senate Finance Committee, said he believes his colleagues should wait until they have better data before tackling the physician reimbursement issue. Sen. Heinz, who heads the Senate Aging Committee and serves on the Finance Committee, introduced legislation moving Medicare to negotiated fee schedules for physicians.

Noting that Congress has already directed HCFA to study the “advisability and feasibility” of physician DRGs, Dole reported that the Office of Technology Assessment will also be studying physician reimbursement and that his committee is working with the Insti-

tute of Medicine to assure that an IOM physician reimbursement study is useful to Congress. He urged his colleagues to "wait until all the cards are on the table before we start dealing a hand which can't be played."

Heinz said that extension of DRGs to physicians would mark "a longer step in health care policy than our present knowledge can possibly justify." His bill, introduced June 13 and called the Medicare Incentives Reform Act (MIRA), is viewed as an alternative to a measure introduced by Sen. Edward Kennedy (D-MA) and Rep. Richard Gephardt (D-MO). Like the Kennedy-Gephardt plan, MIRA would encourage the development of state cost control plans applied to all payers. Whereas Kennedy-Gephardt relies on the threat of a federal all-payers DRG plan to induce state action, the Heinz measure would increase Medicare payments to state that set up their own plans. States that did not would be subject to tightened-down Medicare hospital DRG provisions and to a new Medicare physician payment system.

Unlike the federal portion of the Kennedy-Gephardt plan which would extend DRGs to inpatient physician services, Heinz is proposing Medicare fee schedules based on a relative value scale that "reemphasizes primary and preventive care and deemphasizes hospitalization and high technology." To become fully operational in 1990, the fee schedule would be accompanied by a requirement that participating physicians take all inpatient Medicare claims on assignment and by regional limits on increases in Medicare payments to physicians.

Heinz is also proposing to add catastrophic coverage to Medicare and to limit annual out-of-pocket costs to two \$200 annual deductibles—one for hospital services and one for physician services. The new coverage would be financed through an annual premium projected at \$193 in 1985. The intent is to eliminate the need for insurance supplementing Medicare.

In defending his and Sen. Kennedy's proposal before the same meeting, Rep. Gephardt described the plan as one which allows states to pursue either the competition or the regulatory approach.

"The jury is out" on the relative merits of the two approaches, he explained, so Kennedy-Gephardt is an "attempt to drive us closer to both results at the same time. It sets goals and lets states pursue them whichever way they want, but it is important that we set the goals."

HCFA Ratchets Down on Hospitals

Increases in Medicare payments to hospitals next year would be held to about 4% under new regulations to be proposed by the Department of Health and Human Services.

Although one portion of the formula used to calculate payments under Medicare's diagnosis related groups (DRG) would be increased by 5.6%, another of the factors that determine the payment is being decreased by 2.4%.

HCFA officials said that as a result overall Medicare payments to hospitals will increase by 4.2% next year. Hospital officials said that the regulation will mean that the increase per payment will be 3.2% to 4% and that hospitals will receive about \$1 billion less than they would have been paid if their earlier understanding that rates would be increased by 5.6% had held up.

The permissible rate increase is included in proposed regulations to update the prospective pricing system which took effect last October. Although HCFA intended to issue annual updates of the DRG rates and regulations by June 1, the regulations still were not published in the *Federal Register* at month's end.

Part of the delay was attributed to a behind-the-scenes battle between hospitals and the Reagan administration over the rate increase to be permitted next year. Strict application of the updating formula in the DRG law would have resulted in an increase of 7% to 8%. HCFA officials were considering an increase of only 2% to 3%, however, based on another provision of the law that required that payments under the new system be budget neutral—i.e., no greater than those under an earlier targeted payment system.

Hospitals complained that HCFA had misconstrued the budget-neutral requirement payments after 1986. HCFA then announced it would permit DRG base rates to increase by 5.6% next year.

At the same time, however, the agency made a 2.4% across-the-board reduction in the weights of the DRGs. Since a hospital's payment for any given case is ascertained by multiplying the weight of the DRG for the particular case by the base rate, the agency had in effect held the increase to a much lower level.

The change, according to an HCFA official, was necessary because the hospitals upgraded the severity of the conditions they recorded as the principal diagnosis last year by more than HCFA thought they would. In other words, he agreed, there was more "DRG creep" than anticipated.

"Whether this is gaming (to circumvent the system), or whether the hospitals are just doing a better job of assigning" the diagnosis, "I don't know," he added.

Hospitals charged that the new rates are unfair to hospitals which have made a good faith effort to implement the new payment system. American Hospital Association Executive Vice President Jack Owen viewed the new rates as a "slap in the face to hospitals and physicians who tried to make the prospective system work." Federation of American Hospitals Director Michael Bromberg threatened to go to the courts or Congress to redress the situation.

Health Cost Information Proposal Assessed

Arguing that accurate data on health care costs and quality is a necessary ingredient to control of health care costs, a coalition of groups representing employers, unions and the elderly is pushing for wider dis-

semination of such data in general and of an amendment sponsored by Rep. Ron Wyden in particular.

The Wyden amendment, which has been scaled down from an earlier version attached to a health care technology bill, would direct the Public Health Service (PHS) to use existing resources to study current efforts by business and others to collect and interpret health care data. The department would then be required to provide technical assistance, upon request, to consumer or purchaser groups that want to create their own data bases or to better understand data available from other sources.

Now part of a health manpower bill approved by the House Commerce Committee, the measure is intended to encourage the development of data collection efforts around the country. It does not authorize the PHS to collect or disseminate comparative price and quality information, however. Nor does it require providers or insurers to provide any data to the groups trying to assemble it. Confidentiality of individual patient records is to be "assured."

Groups such as the American Medical Association, which opposes the Wyden provision, have maintained that "the purchase of health care services is unique and does not necessarily lend itself to easy comparison based on price or comparative utilization." They further argue that while the bill attempts to protect the individual patient, "there have been problems in the past with careless dissemination of" such information.

Groups which favor the Wyden amendment respond that consumers are capable of understanding the data. They see the Wyden measure, which one supporter characterized as "benign," as a first step to other efforts to make health care price, utilization and quality data more widely available.

Many of the same groups are also pushing for the new peer review organizations (PRO) that will monitor the care Medicare patients receive. The proposed PRO regulations would make data on specific hospitals available but would protect data on individual physicians. Hospitals and physician groups have argued that the proposed regulations are too broad. The business and consumer groups, which want physician specific data to be available to the public, think they are too restrictive.

At a press conference June 13, Wyden said he expects his measure to come to the House floor within "the next few weeks." The proposal as yet has no Senate sponsor. In the House, it has also been endorsed by Commerce Committee Chairman Rep. Henry Waxman (D-CA), Rep. Richard Gephardt (D-MO) and Rep. Tom Tauke (R-IA).

Tauke's home state last year created the Iowa Health Data Commission which has issued two reports. One reported wide variations in hospital charges across the state for 25 frequent diagnoses; the other compared financial statistics of hospitals over the period 1977 to 1982. It is that type of data that the proponents of the Wyden amendment want to foster.

Five groups represented at the press conference included the American Association of Retired Persons, the AFL-CIO, and the Washington Business Group on Health. Their primary argument involved the need for better data in a more competitive health care system.

The Blues Restrict Coverage

In a year, the Blue Cross and Blue Shield Association will begin restricting its coverage of x-rays, CAT scans, and other diagnostic imaging procedures it believes to be medically unnecessary.

The use of diagnostic imaging procedures escalated 8% this year, and is expected to continue to climb. Many procedures are misutilized, overutilized, or redundant, said Blue Cross and Blue Shield Association President Bernard R. Tresnowski in June.

When a procedure is medically necessary and is justified in writing by the physician, the Association will pay for it. When medical necessity is in question, the case will be reviewed by a committee of Blue Cross and Blue Shield medical advisors. If the doctor and committee disagree, payment will be denied.

"Generally, we will pay the claim. But we'll be asking a lot more questions," said Tresnowski. The key recommendations of the guidelines are:

- Neither thermography nor diaphanography are recommended to evaluate suspected breast cancer or other breast disease.
- A CAT scan should not be used to evaluate minor headaches, but may be indicated in the case of unusual headaches suggesting a more serious brain disease.
- Ultrasound should not be used during pregnancy unless a specific problem is suspected.
- Routine chest x-rays are not recommended for any situation, including prenatal visits, hospital admissions or employment, except on the basis of individual history and physical examination or in testing for specific diagnosis.

Seven professional medical organizations participated in the development of the guidelines: the American College of Radiology, American Academy of Pediatrics, American College of Nuclear Physicians, Society of Nuclear Medicine, American Academy of Neurology, and the American Association of Neurological Surgeons.

Cancer Breakthroughs Near, Congress Hears

Intense research into cancer and oncogenes now appears to be on the brink of producing actual clinical applications. Within a decade, scientists predict that they will be able to screen patients, more precisely classify tumors, and even offer therapy using this fledgling technology.

At a June hearing of a House Science and Technology Committee Subcommittee, researchers from the nation's top research institutes presented some of their most optimistic predictions yet.

By the year 2000, the current 50% cancer survival rate will jump to 75% with better preventive measures and up to 90% when oncogene research is applied, said Dr. William F. Feller of Georgetown University.

Using oncogenic know-how, new tumor classifica-

tion techniques should be available by 1986; improved tumor diagnosis, by 1990; and actual cancer therapy, by 1994, said researchers.

Oncogene probes can identify the genetic changes that signal a cancerous or at-risk individual. Because the probes can identify oncogenes, and even pinpoint where they are being expressed, very early cancers can be detected. This will be especially useful in diagnosing cancers in hard-to-reach organs, such as the pancreas, scientists said.

Improved tumor classification techniques will also be a boon to patient management. The presence of a specific oncogene may be predictive of a certain tumor type and behavior. This is important to clinicians who need to know which tumors will respond well to aggressive chemotherapy and which tumors will be unaffected.

Oncogene research funds are growing at twice the rate of other basic research funds. Oncogene investigations comprised 3.7% of the total National Cancer Institute budget in 1983, then doubled to 8.4% in 1984. A similar climb in funding is expected in 1985.

announcements

CALENDAR OF MEETINGS

NATIONAL

- Sept. 3-7 International Congress of the International Academy of Pathology—Fontainebleau Hilton, Miami Beach
- Sept. 10-15 American Electroencephalographic Society—Hotel Utah, Salt Lake City
- Sept. 12-15 American Group Practice Association—Leows Anatole, Dallas
- Sept. 15-19 American Institute of Ultrasound in Medicine—Westin Crown Center, Kansas City, Mo.
- Sept. 15-20 American Academy of Pediatrics—Hyatt Regency, Chicago
- Sept. 16-20 American Academy of Otolaryngic Allergy—Las Vegas
- Sept. 17-20 American College of Radiology—Century Plaza, Los Angeles
- Sept. 19-22 American Thyroid Association—Waldorf Astoria, New York
- Sept. 20-22 American Association for the Surgery of Trauma—Hyatt Regency, New Orleans
- Sept. 20-22 American College of Nutrition—Boston Park Plaza
- Sept. 20-23 American Society of Bariatric Physicians—MGM Grand, Reno, Nev.
- Sept. 20-23 American Society of Internal Medicine—Hilton Palacio, San Antonio, Tex.
- Sept. 25-28 American Academy of Occupational Medicine—Hotel Utah, Salt Lake City
- Sept. 30-Oct. 5 Congress of Neurological Surgeons—Hilton Hotel, New York
- Oct. 7-10 American Neurological Association—Hyatt Regency, Baltimore
- Oct. 7-11 American College of Chest Physicians—Anatole, Dallas
- Oct. 8-10 Emergency Medicine Today '84 (sponsored

- by N.C. Dept. of Human Resources)—Winston-Salem, N.C.
- Oct. 9-12 American Academy of Family Physicians—Crown Center Hotel, Kansas City, Mo.
- Oct. 9-12 Cardiac Rehabilitation Symposium (sponsored by East Jefferson General Hosp.)—Marriott, New Orleans
- Oct. 9-14 American Society of Maxillofacial Surgeons—Hilton, Las Vegas
- Oct. 9-14 American Society of Plastic and Reconstructive Surgeons—Convention Center, Las Vegas
- Oct. 10-13 American Association for Cancer Education—Marriott, Tarrytown, N.Y.
- Oct. 10-13 American School Health Association—William Penn, Pittsburgh
- Oct. 12 Selected Topics in Pediatrics (sponsored by Eastern Virginia Medical School/Children's Hospital of the King's Daughters)—Norfolk, Va.
- Oct. 13-16 National Perinatal Association—Hyatt Regency, Dearborn, Mich.
- Oct. 13-17 American Society of Anesthesiologists—Hilton, New Orleans
- Oct. 17-20 American College of Emergency Physicians—Hyatt Regency, Dallas
- Oct. 17-20 Clinical Orthopaedic Society—Fairmont Hotel, New Orleans
- Oct. 19-24 American Association of Blood Banks—Convention Center, San Antonio, Tex.
- Oct. 21-26 American Congress of Rehabilitation Medicine—Sheraton, Boston
- Oct. 22-25 Interstate Postgraduate Medical Association—MGM Grand, Las Vegas
- Oct. 22-27 Society of Clinical and Experimental Hypnosis—Hilton Palacio del Rio, San Antonio, Tex.
- Oct. 23-27 Association of American Physicians and Surgeons—Williamsburg Lodge, Williamsburg, Va.
- Oct. 24-28 American Academy for Cerebral Palsy and Developmental Medicine—Sheraton, Washington, D.C.
- Oct. 24-28 American Academy of Neurological and Orthopaedic Surgeons—Caesars Palace Hotel, Las Vegas
- Oct. 25-26 American College of Clinical Pharmacology—Franklin Plaza, Philadelphia
- Oct. 27-Nov. 2 American Society for Clinical Pathologists—Marriott/Sheraton, New Orleans

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Calling All Doctors!

L. J. BERNARD, M.D.

In November 1983 the American Cancer Society launched an expanded colorectal cancer program titled *Colorectal Health Check (Check)* with a multi-media show at the November ACS National House of Delegates meeting in New York City. The primary goal of Check is to reach the largest possible number of persons in the appropriate age group and motivate them to go to their physicians or clinics to have the three recommended tests for the early diagnosis of colorectal cancer, i.e., the digital rectal examination, the stool blood test, and proctosigmoidoscopy.

Because 98% of all colorectal cancers occur after 40 years of age, there is a defined population in which simple procedures carried out in the course of daily practice can identify the asymptomatic patient whose colorectal lesion is of limited extent and more readily curable. The Check program will therefore be aimed at this age group and their physicians.

In the Tennessee Division the intensive three-year Check program will be launched in September in conjunction with the new fiscal year of the Society. A Colorectal Health Check Program Task Force has been assigned the duty of formulating a three-year plan for implementing Tennessee guidelines provided by the Society's national office. Several elements of the program are likely to come to your attention from both professional

and lay quarters. This writing is intended to forestall surprises and to enlist your support of this effort.

Your attention is especially directed to the following four items:

1. A locally prepared, brief questionnaire on early detection practices regarding colorectal cancer will be sent to physicians in Tennessee about Sept. 1, 1984. You are urged to complete and return this survey instrument as soon as possible.

2. The Tennessee Endoscopic Society is co-operating with the Society through the Tennessee Society of Internal Medicine and the Tennessee Academy of Family Physicians in arranging training sessions for primary care physicians in the use of the flexible proctosigmoidoscope.

3. An Exemplar program has been initiated among Cancer Society volunteers urging that those in the appropriate age group seek regular check-ups for colorectal cancer, including proctosigmoidoscopy, from their physicians.

4. An expanded public education program encourages the public aged 40 and over to specifically ask their physicians for the basic screening tests for colorectal cancer as part of their regular check-ups.

The overall objective of this Colorectal Health Check Program is to significantly increase the salvage of lives by earlier detection of this highly treatable, all too frequent and relatively accessible cancer. Its ultimate success depends on you.

From the Colorectal Health Check Task Force, Tennessee Division, American Cancer Society, Nashville.

TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga and Hamilton County Medical Society, Inc.)

CHATTANOOGA CHOO CHOO CENTENNIAL CENTER

October 1-2, 1984

MONDAY, OCTOBER 1, 1984

7:30 a.m. Registration

ADVANCES IN SURGERY AND FAMILY PRACTICE

- 8:15 a.m. John J. Bergan, M.D., Chicago
"ADVANCES IN VASCULAR SURGERY"
- 9:00 a.m. Abe Macher, M.D., Bethesda, MD
"ACQUIRED IMMUNE DEFICIENCY
SYNDROME"
- 9:45 a.m. Coffee Break—Exhibit Visitation
- 10:15 a.m. Eugene A. Stead, Jr., M.D., Durham, NC
"UNIQUENESS OF THE ELDERLY PATIENT"
- 11:00 a.m. Melvin J. Steinhart, M.D., Albany, NY
"THE EMOTIONAL ASPECT OF A
MYOCARDIAL INFARCTION"
- 11:45 a.m. Questions & Answers
- 12:00 noon LUNCHEON
Studio Room, Chattanooga Choo-Choo
SPEAKER: Fred J. Young, Chicago
SUBJECT: "PERSONAL FINANCIAL
SECURITY"

FRONTIERS OF MEDICINE

- 1:30 p.m. Anne Colston Wentz, M.D., Nashville
"IN-VITRO FERTILIZATION"
- 2:15 p.m. William W. Stead, M.D., Durham, NC
"COMPUTERS IN MEDICINE"
- 3:00 p.m. Coffee Break—Exhibit Visitation
- 3:30 p.m. Robert H. Alford, M.D., Nashville
"IMMUNIZATIONS 1984: HEPATITIS B,
HERPES, INFLUENZA AND
PNEUMOCOCCUS"
- 4:15 p.m. Roy Curtiss, III, Ph.D., St. Louis
"GENETIC ENGINEERING AND OTHER
SOCIO-MEDICAL ISSUES"
- 5:00 p.m. Questions & Answers

TUESDAY, OCTOBER 2, 1984

7:30 a.m. Registration

ADVANCES IN ENDOCRINOLOGY

- 8:15 a.m. Howard R. Nankin, M.D., Columbia, SC
"SEXUAL DYSFUNCTION
IN THE MALE"
- 9:00 a.m. Harold E. Lebovitz, M.D., Brooklyn
"SECOND GENERATION ORAL
HYPOGLYCEMIC AGENTS"
- 9:45 a.m. Coffee Break—Exhibit Visitation
- 10:15 a.m. Robert S. Weinstein, M.D., Augusta, GA
"METABOLIC BONE DISEASE"
- 11:00 a.m. James G. Johnson, M.D., Memphis
"ACUTE RENAL FAILURE"
- 11:45 a.m. Questions & Answers
- 12:00 noon LUNCHEON
Studio Room, Chattanooga Choo-Choo
SPEAKER: Margaret Rhea Seddon, M.D.
Houston
SUBJECT: "A VIEW FROM SPACE"

ADVANCES IN INTERNAL MEDICINE

- 1:30 p.m. John W. Hollifield, M.D., Nashville
"SUDDEN DEATH"
- 2:15 p.m. James K. Penry, M.D., Winston-Salem, NC
"ADVANCES IN EPILEPSY"
- 3:00 p.m. Coffee Break—Exhibit Visitation
- 3:30 p.m. Thomas G. Peters, M.D., Memphis
"TRANSPLANTATION—UPDATE"
- 4:15 p.m. Martin J. Collen, M.D., Bethesda, MD
"MEDICAL TREATMENT OF PEPTIC ULCER
DISEASE"
- 5:00 p.m. Questions & Answers

Medicine at the Crossroads

An Editorial

JOHN B. THOMISON, M.D.

Last winter the TMA sponsored its usual annual Leadership Conference, designed to keep the state's medical leadership informed on current issues of importance to medicine. The theme this year was "Medicine at the Crossroads." No more than about a hundred physicians were in attendance. I am unsure of the reason. Are there really no more than a hundred physicians in the state who consider themselves leaders? Or if there are others, is it that they believe they are already sufficiently informed on the issues? A third possibility is that they have little interest, considering themselves above all that, or a fourth, that they do not understand the gravity of "the fix we is in." In either case they are indeed not leaders.

Since so few were in attendance at the conference, and considering its high quality and its importance and timeliness in view of medicine's present precarious situation, I thought I had better publish the major addresses. All of this has entailed a lot of expense in money, time, and effort on the part of the speakers, TMA staff, and your editor. It is discouraging to draw the rather obvious conclusion that probably few will read it, and they likely will be those who attended and those who otherwise have kept abreast of the situation. It certainly gives one pause to question whether it is worth doing at all.

I am not certain that the coveners of the conference and I see the same crossroads, but my perception is that on one of the two paths medicine continues as the honored profession it has long been, whereas on the other it becomes in fact the trade that the Federal Trade Commission (FTC) already perceives it to be. Have we already made so many concessions to accommodate the various interests that threaten our livelihood that our tenuous hold on professionalism is already broken? In his keynote address, Dr. Annis traces the course and the pressures that brought us where we are today, and explains where that is. I am not so naive as to believe that in pursuing that course, medicine as an entity and its individual constituents have been spotless, either individually or corporately. Nevertheless, whereas there have always been individuals with more of a business than a professional bent, the entire profession has now been thrust into that arena by outside

forces. We are being required to become entrepreneurs, a part of the marketplace, subject to all its pressures and blandishments. Dr. Corlin describes how this will affect the relationship of physicians in their staff relationships with hospitals, and some things we can, or even must, do about it.

In order to cope with the competitive forces of the marketplace, physicians will have to develop marketing skills. Dr. Endress explains that the term marketing is really not pejorative, but that marketing simply involves promoting one's medical skills to prospective patients; he details some methods for accomplishing that. Though it is not quite, this comes perilously close to solicitation of patients, which is not illegal and which is condoned, and even promoted, by the FTC, but on which the profession, so long as it remains a profession, must frown. Dr. Avery establishes the context of all of the previous material in the medicolegal climate in Tennessee, and ultimately that of the nation as a whole.

Though there has always been a measure of competition among doctors, except in a few unfortunate situations it has always been subjugated to the best interests of their patients. The current practice climate in which we find ourselves endangers both the doctor-patient relationship, covered by medical ethics, and intra-professional etiquette. Blatant hucksterism is only a breath away. As a response to those dangers, the AMA in its national leadership conference empanelled the AMA Judicial Council to address the subject of "Medical Ethics in a Competitive Environment." Tennessee's John Burkhardt, M.D., a member of the Council, made a summarizing statement about the perils we face, and because it directly relates to the discussion at hand, I have chosen to publish it as the final paper in this issue to try to bring all of this diverse material into perspective.

Will we become, instead of our cherished and honored profession, only another trade? There are pressures to make us that, as well as opinions that we already are. But in the end, we have the final word. It is not for government or business to decide. Our future lies in our own hands.

APRIL 1985						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
			TMA 150TH ANNUAL MEETING Hyatt Regency Hotel—Memphis			
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	NOTES			

Medicine at the Crossroads

A Symposium

Organized Medicine— Today and Tomorrow

EDWARD R. ANNIS, M.D.

The years pass quickly. In discussing medicine today and tomorrow a little history is necessary because it is what took place yesterday with its great successes that has created the problems we face today. How we deal with these problems, however, will determine how medicine will be practiced tomorrow.

The Second World War was characterized by tremendous advances in medicine, as penicillin followed the sulfas and infectious diseases came under control for the first time in history. Public opinion was generated to demand for all of our people those benefits and advances in medicine that had flourished during the war years. With government encouragement, communities small and large cooperated to build hospitals and equip them with the rapidly expanding and increasingly effective diagnostic and therapeutic tools.

Mr. Joseph Califano, an appointee of Lyndon Johnson, wrote a speech for the President in which he stated, "We have 50,000 too few doctors." Our medical colleges were told to expand their facilities to turn out more young men and women to be doctors of tomorrow or their federal funds would be curtailed. This is especially interesting historically because it was that same Joseph Califano, then Secretary of HEW under another President, Jimmy Carter, who appeared

at a meeting in New Orleans a few years ago, addressing the Association of American Medical Colleges, and his theme, "You're turning out too many doctors and if you don't stop, we'll cut off your funds." Today we hear that there are too many hospitals and that there are too many doctors, both statements thoughtful reminders that the nation and its medical schools responded to the challenge to provide doctors and hospitals to care for all of our people.

Under the so-called Great Society, promises were made to provide a single standard of first-class medical care for all of our people. Government entered into a contract to provide medical care for the elderly and agreed to assist the states in providing Medicaid for the poor.

The legislation originally proposed under the King-Anderson Bill promised entitlement to everyone by virtue of reaching the age of 65. Doctors cautioned our congressional leaders that many of the elderly were able to take care of themselves and should do so, leaving the government the responsibility of caring for those in need, irrespective of age. Our advice was ignored, King-Anderson became Medicare, and some of the theories proposed by its advocates have since proven to be wrong, as more people live longer and better lives. Preventive medicine was the cry with the promise that it would cost less. Things haven't worked out that way, because as people have gotten healthier, they have lived longer. As they live longer, many develop

Dr. Annis is a past president of the American Medical Association. Presented at the Tennessee Medical Association Leadership Conference, Nashville, Feb. 19, 1984.

Reprint requests to 9999 N.E. 2nd Ave., Miami Shores, FL 33138 (Dr. Annis).

the infirmities of age, and when they become ill have their heart disease and cancers accompanied by high blood pressure, kidney disease, diabetes, arthritis and other problems attendant with longevity. Thus as medicine has become more efficient, making more people live longer, it treats more patients and more money is spent, so that the 11% of the population designated as "senior citizens" consume in excess of one third of all the health care dollars spent annually.

The government failed to fund adequately that which they promised and they met their original promised obligations for roughly 18 months before they started the cutback on reimbursement to hospitals and doctors for health care services rendered.

Hospitals were encouraged to refurbish, to build, to expand, and to purchase technical tools to provide quality care, all in response to a promise of cost-plus reimbursement.

Many fine hospitals have been built, equipped with fine carpets, a telephone at every bed, remote control color television in every room, electrically operated beds, etc., all of which added material comforts to those requiring hospitalization, but hardly necessary to provide their medical care. I suspect that psychiatrists and psychologists might say that these actually do contribute toward a patient's well-being by giving them a feeling akin to being at home.

Government also promised to pay doctors, but soon, as the costs continued to escalate, they initiated cutbacks on the basis of percentiles, so that more and more of the cost would be absorbed by individual patients. No problem for the wealthy, but a very real problem for the underprivileged.

As government paid less and less to hospitals and doctors, inevitably there was a shift of the cost burden to the private sector, a shift reflected in higher professional fees and higher charges to individuals, or to third parties increasingly taking over the role of payment for services rendered.

The escalation of insurance costs to employers gained little recognition at first because of the government's subsidy, which promised total tax deductibility to the employer and no tax liability to employees. With such tax benefits available, labor and management negotiated dollar values for health care benefits without inviting to the negotiating table either doctors or hospitals,

which were experiencing rapid and increasingly costly technological advances.

In recent years business leaders have seen increases of 20% to 25% per year in their health insurance costs, so that now many join the political demand for controls of doctors' fees and hospital charges. This accounts for the current business interest in such new proposals as Preferred Provider Organizations (PPOs), Exclusive Provider Organizations (EPOs), Diagnosis Related Groups (DRGs), and other similar proposals carrying a promise of controlling costs.

As political leaders recognized that they had promised more than they could finance, they instituted a series of programs designed to curtail costs.

Regional medical programs for heart, cancer, and stroke were established but later abandoned. In an effort to control and monitor admissions, quality of care, and length of stay, the Health Systems Agencies (HSAs) were established. In establishing them, however, provisions were made that the majority of those making the decisions should be neither direct nor indirect providers. The direct providers, of course, were physicians and hospital administrators, whereas indirect providers were their employees, their spouses, and others closely associated with health care delivery. In other words, it was specified in Washington that the majority of those charged with making decisions should know nothing about the problems. HSAs established certificates of need in an effort to control capital expenditures for new equipment, such as CAT scans. Many hospitals were denied the right to purchase a CAT scan even with their own money. Time and professional experience proved the tremendous value of this great new diagnostic tool, so that barriers were lowered in this one instance.

Another approach to control costs was Professional Standard Review Organizations (PSROs), charged with ascertaining the propriety of a patient's being admitted to a hospital, quality of care rendered, and with eliminating an unduly prolonged stay.

One after another of these proposals to control costs have failed, only to be followed most recently by mandated DRGs for hospitals, and legislative approval for the establishment of PPOs, EPOs, and statewide Peer Review Organizations (PROs) to continue the monitoring process.

DRGs are an effort to put a lid on hospital

costs. That's what they say, but that's not really what they are talking about. What they are really saying is that we are going to put a lid on what we will pay for services rendered. Imagine a cost control on hospitals and doctors with no parallel cost controls on labor, personnel, equipment, energy, etc. Sixty percent to 65% of the operation of a hospital is for personnel—its labor costs. Along with regular labor costs are the attendant and ever-increasing costs of Social Security, local, state and federal taxes, medical supplies, malpractice insurance, etc.

Putting a lid on a boiling pot may appear to control things for the moment, but any housewife will tell you that the lid's effectiveness will be short-lived unless you cut down the heat.

What is the source of heat? Actually there are many sources today, but the root cause has a "Made in Washington" label, namely our government and those responsible for legislation. Every major economist dealing with the problem has admitted that 50% of the increase in health care costs since the advent of Medicare in 1965 and Medicaid in 1966 is the same inflation that affects all of the rest of our economy.

We have seen over two decades of increasing government debt associated with deficit spending. Recent reports from the Grace Commission indicated that, "One third of all income taxes collected are consumed by waste and inefficiency in government." That is a story in and of itself and deserves further investigation. Among other things, the Grace Commission opined that over a three-year period we could save \$424 billion merely by eliminating wasteful and inefficient operations of government. They pointed out a number of areas where the military and others have tried to eliminate unnecessary and costly facilities, only to have the Congress repeatedly say "no." Mr. Grace, in reporting to President Reagan, went further and said that this \$424-billion savings over a three-year period could be accomplished "without jeopardizing either social programs or our military defense potential."

A number of studies have indicated that another 25% of the increase in health care costs can be demonstrated to evolve from unnecessary rules and regulations, personnel, and paper work resulting from federal and state regulations unrelated to providing health care.

Neither doctors nor hospitals contributed to the 75% of inflation and regulations for which they are blamed. These are the result of govern-

ment action and bear the "Made in Washington" label.

To elaborate a little further: In 1965, the date of government's major intrusion into health care, federal spending was \$118 billion. Today it is more than eight times that, exceeding \$900 billion. In 1965 the federal deficit was \$1.6 million dollars. Today it is more than 100 times larger because of a government that has consistently over-promised, initially establishing the war on poverty coincident with the Vietnam War, without telling the American people of the necessity to pay. These coincidental and costly programs were financed with borrowed money, a process that continues even today.

Since our meeting started this morning the interest on the national debt has exceeded \$200,000 a minute, more than \$300 million a day, over \$2 billion every week. And that is just interest, with no reduction of the principal. That is why we are in trouble. The same inflation that affects all the rest of our economy affects medicine, affects doctors, and affects hospitals.

What about the other 25% unrelated to regulation and inflation? Oh, I think we can justify a lot of this. There are 2 million more people in the country today than there were a year ago and there is no way that we can take care of 2 million more people one year and not have it cost more than it did the year before. This number merely reflects the normal increase of births over deaths, and legal immigration, not to mention the 6 million to 9 million illegals in this country who also come under the health care system.

A second part of that 25% that I believe can be justified is the 11% of the population over the age of 65, which consumes more than one-third of all of the health care dollars spent in this nation—dollars spent for hospitals, for physicians, for dentists, for nursing homes, and for the many supportive services required by our elderly.

The third factor is technology. If you were to take one of your friends, or better still a legislator, into your hospital and show him the diagnostic and therapeutic tools in the emergency room, the operating room, cardiac care unit, intensive care unit, the pathology laboratory, the imaging center and all the rest, as you leave the hospital you could remind him that more than one-half of all the diagnostic and therapeutic tools he saw did not exist any place in the world ten years ago. The facts of the matter are, however, that neither an ever-increasing population, an expanding

population of longer-lived senior citizens, nor great technological aids have deterred those political leaders who would arbitrarily limit payment for services rendered.

Among other potentially dangerous proposals is that cosponsored by Senator Kennedy and Representative Paul Gephart, who would consolidate physician and hospital charges into one single payment for each admission. For example, if the family physician were to admit a patient to a hospital with upper abdominal symptoms, x-rays would be required to demonstrate the presence of gallstones. Upon this finding a surgeon might be called, who of course would need the services of an anesthesiologist and all reports would go to the pathologist. Under the Kennedy-Gephart proposal one check would be issued by the government to be divided among the hospital and all of the various physicians involved.

Another Kennedy-Gephart proposal would bar doctors from charging patients any more than Medicare would pay. This is an especially ominous proposal because it is joined by the chairman of the Ways and Means Committee, Mr. Rostenkowsky, who has indicated he will introduce a bill mandating the acceptance of Medicare as an assignment on all patients, the rich as well as the poor. To assure acceptance, his bill would go further and would deny reimbursement to any hospital allowing physicians to practice who would not agree to accept total assignment under terms dictated from Washington.

Recently during a television newscast I saw and heard Mr. Kennedy state, "I do not need a stethoscope to diagnose the cause of health care cost inflation—hospitals and doctors charge too much." This is a man born to wealth, who with his associates in the Congress has already voted for himself a retirement benefit in excess of \$1 million. It is he who says the trouble is that doctors and hospitals charge too much. However frustrating such people are, we must be careful not to dismiss all of this as merely political rhetoric, because similar views have been expressed by Senator Dole, the powerful chairman of the Senate Finance Committee, who has indicated that medical care is the next target for legislative mandate.

How do such people justify their recommendation for some of these new proposals for arbitrary limits? Well, the first thing they say is that

health care costs have been growing much more rapidly than the gross national product. The gross national product is the sum of goods and services provided in the country. If you had breakfast this morning, you may have had bacon and eggs or cereal and coffee, cream, etc., all of which could have been purchased for a little less but of similar quality ten years ago. The clothes we wear and the buildings we are in change a little in style along the way, but essentially could have been purchased or built ten years ago. However, as previously indicated, more than one-half of all the diagnostic and therapeutic tools that we use today did not exist anywhere ten years ago. A billionaire could not have purchased for himself and his loved ones many of the life-saving and life-prolonging tools that are commonplace today. The amended Grace Report, concentrating on areas of health care, indicated that had we had DRGs ten years ago, we would not have seven or eight of the technological advances currently in use. People now see who were destined to be blind; people who were deaf hear; many who were confined to their bed or wheelchair can now walk again; and the marvelous story goes on and on. It is neither fair nor just to compare the cost of medical care today with that of the general run of goods and services, in that so much of what is good was nonexistent just a few years ago.

The second and repeated criticism is that medical care now constitutes 10.5% of the gross national product. Is it unreasonable to ask the question, how much should it be? Why is 10.5% too much? Should it not take whatever is required to provide first-class medical care to all of our citizens when they need it, as long as they need it, to the extent of their need, whether or not they can pay for it? Two years ago Washington figures showed that 17.5% of the gross national product was spent on sports and recreation. You and I know that sports and recreation actually contribute to good health, but why is 17.5% on sports and recreation totally acceptable without criticism, while we deride 10.5% for the total health care of the American people?

In 1981 Washington records indicated that 20% of the gross national product was spent on transportation, moving people and things from one place to another. We are a mobile nation, transportation is essential, but why is 20% accepted as perfectly natural for transportation while we criticize roughly half of that amount being spent

for the number one need of any people, namely their health.

Speaking before the Atomic Industrial Forum, physicist Edward Teller, in reflecting on nuclear debate, opined, "It isn't technology—it's politics. It isn't facts—it's perception."

We must correct the perception that somehow services rendered to the sick, the injured, and the impaired are of less value than services in other areas, such as wholesale and retail trade, computers, radio, or TV.

Health care in all its components is not a drain on the gross national product, it's not money lost. On the contrary, it is a positive contributor to the gross national product. Health care is the true bellwether of all services and reflects an industry that employs great numbers to keep it operating 24 hours a day, 365 days a year.

Health care is labor intensive, much of it high-tech with good incomes, and its workers spend their wages—as do all other service workers—in buying the goods and services of the marketplace. This is a positive contribution to the economic stability of any city, of any country.

We must aggressively pursue this effort to change public perception, public understanding that continued scientific and technological advances will cost more, not less, if they want us to continue to provide quality medicine for all in our nation.

Why are jobs in hospitals, men and women working as plumbers, electricians, carpenters, food handlers, cooks, maintenance people, technicians, and nurses—why are these jobs not a contribution to the basic economy and stability of any area? We have allowed politicians and others to create the perception that money spent in this way is lost. It is not lost, it is poured right back into the community. In the city of Houston, the oil capital of the world, the number one positive balance of payments coming into that city is estimated at between \$7 billion and \$9 billion dollars a year to its number one employer, the health care industry.

Is it unreasonable to ask, why doesn't government pay its just bills to doctors and hospitals? Did you ever stop to think about it? This is the only area where government doesn't pay its just bills for programs it established and promised to fund.

Everyone else is paid, for the building of ships, planes, guns, tanks—almost all characterized by overruns in the millions of dollars.

I recently saw a television program picturing

one of our new tanks capable of going over almost any terrain at the rate of 40 miles an hour. During the telecast it was incidentally noted that each tank had a cost overrun of between \$500,000 and \$1 million.

The most recently constructed large Senate office building, the Hart Building, was projected to cost \$47 million, but it ended up costing \$137 million. Everyone was paid—every architect, engineer, every supplier of steel and concrete, every worker; so is it unfair to ask, why doesn't government pay its just bills?

Another of government's excessive promises is that for the treatment of end-stage renal disease. After a patient was wheeled into the Ways and Means Committee room in Washington, its members were backed by the Congress in the promise that all people afflicted with this disease would now be covered under Medicare. In this instance entitlement was conferred because of disease rather than age, but similar and rapid cost escalations resulted. When the program was instituted in the early 1970s there were 6,900 people receiving dialysis. The cost was estimated to be about \$150 million the first year, and it was projected that these costs would gradually rise to a top level of around \$350 million a year. Last year? The bill? \$1.8 billion. This year the cost is projected to exceed \$2 billion!

Speakers in Washington say that we are spending too much, and yet just recently they have declared as no longer experimental such expensive procedures as heart transplants, liver transplants, lung transplants, etc. and have indicated that not only can insurance companies reimburse costs, but so can government programs such as CHAMPUS.

A more recent and costly proposal is the Baby Doe regulation, denying parents and doctors decisions on babies born with multiple defects. With today's technology we have the capability of keeping hopelessly deformed and defective infants vegetating for days, weeks, or months at great expense. The unfunded or inadequately funded promises go on and on.

Where does the money go? Where does all this money for health care go? In terms of population segments the most important generational fact is that the greatest amount of health care money is spent on the very young and the very old.

Last year we lowered the infant mortality in the United States for the 21st consecutive year. When I began in medicine we couldn't save a

newborn weighing less than 3 lb. Today neonatology specialists save some weighing as little as 1.5 lb. It is done at great expense, of course, since the average cost is around \$25,000 to \$30,000. Shall we ask the woman who has had successive miscarriages, then delivers a 2-lb baby she wants dearly, how much the child is worth? If we can lower the infant mortality for the 22nd straight year at increased costs, should we do it?

At the other extreme, as I have indicated earlier, are the elderly, who constitute 11% of the population, but who consume over one-third of all money spent on health care in America. Modern medicine enables them to live better and longer at increasing cost, and some studies have shown that 40% of those geriatric dollars are consumed during the last two years of life. *The greatest economy in health care is death!* Is it unreasonable to ask our senior citizens and their children and their grandchildren this question: If we can further extend enjoyable life for the elderly, but only at increased costs, should we do it?

And as we respond to the question, where does the money go, it is well to explore other demand-side factors contributing to the heat under the kettle boiling with cost escalations. You and I know that the leading cause of death in this country is cardiovascular disease. We also know that last year was the 12th year in a row that deaths from heart attacks and strokes were progressively lowered, varying annually from 3% to 5% per year. As more people responded to medical advice, controlled their high blood pressure, and listened to their doctors, the mortality from strokes has been steadily lowered. Despite the 120,000 open-heart surgical procedures last year, and despite the new and innovative approaches from the medical side, putting clot-dissolving ingredients into vessels through a catheter, in spite of all these admittedly costly procedures, cardiovascular disease is not the greatest drain on the health care dollar.

The greatest amount of money goes for dealing with cancer. We see it in the young and the middle-aged, but it is primarily a disease of later years, where the elderly afflicted also suffer from other maladies such as arthritis and diabetes, hypertension, etc.

A recent Harvard Health Care letter indicated that we could eliminate roughly one-third of all

cancers with which we deal if we could eliminate just one product: tobacco. That one product, heavily subsidized by our government, is associated with cancer of the tongue, of the floor of the mouth, of the trachea, the esophagus, the lungs, and the bladder, not to mention its additional deleterious effect on the cardiovascular system.

What's next to cancer as a major cost factor? Heart disease? No. Accidents! The National Safety Council reported that last year there were over 3 million accidents in this country; over 1.5 million people were hospitalized for days and weeks and many of them for months. The average annual number of deaths from highway accidents approximates 50,000 a year. You all recall some months ago when the nation was shocked to read that seven persons were poisoned when someone put cyanide in Tylenol capsules. Tragic? Of course. But during the same week those seven people died we killed 900 people on the highways of this country, and we put 66,000 more people in the hospital. This constitutes a costly demand for health care.

Consider that 10,000 young people become quadriplegics and paraplegics every year, primarily from automobile accidents, but a few from diving accidents or gunshot wounds. Great strides have been made in rehabilitation, but these 10,000 will be added to the 10,000 last year and the 10,000 next year requiring very costly rehabilitation therapy as long as they live.

Two million burns are reported every year, roughly half of them in children, most of them occurring in their own homes. These require some of the most extensive and expensive of all surgical procedures.

What are we supposed to do when people come to us with their cancers, their heart attacks, their strokes, their destructive accidents? Should we not continue to give them the best of which we are capable?

If, however, we are so unfortunate as to have controls forced upon us, we will have to live under the mandates of the law. And if we are forced to, we can do it. We have a good example in our colleagues in the profession who have lived under it for over 35 years in Britain. The British national health program has a record which clearly demonstrates that there are three feasible ways in which government edicts can, indeed, successfully limit or control health care costs.

Number 1: We can deny health care. A little

over a year ago the National Health Service arbitrarily cut off treatment for end-stage renal disease at the age of 55. Beyond that age, patients in need of dialysis or a kidney transplant must petition the private sector for help or go without treatment, with the inevitable results.

Number 2: We can delay health care. Stories about delays abound in Britain. Instead of hearsay we may trust reports carried in the *Wall Street Journal* of Feb. 9, 1983, which told of a woman age 64 who hobbled around with a cane for more than four years before she was offered a bed and successfully operated for "a terrible pain in her left knee." Another patient age 69 had a knee operation in 1979 after waiting three years, and she has since waited for a new hip. The *Wall Street Journal* concluded: "Right now 785,000 people are on the National Health System's waiting list." It is obvious that a system of rationing care by delaying health care for many can also save money.

Number 3: We can, of course, provide less than the best care of which we are capable. I doubt if senior citizens or their children would vote for this route if they thoroughly understood the problem. All current proposals allegedly to control costs are not controlling costs; they are designed to limit payment. Government is saying we won't pay any more than we decide your services are worth. Many third party payors are saying we will pay only what government pays.

All such proposals come from those who don't take care of the sick, the injured, the impaired. Who are they to determine the value of your services? Why should you agree to do more for less under terms dictated by a third party? A doctor's contract is with his patient, not with government, not with the Blues, or Aetna, or any other insurance company. It is the government and other third party payors that have contracts with your patients to indemnify them for partial or total economic costs for their medical treatment.

The term "insurance" has been improperly applied to many of these contracts in the health care field. True insurance is designed and funded to protect individuals against accidents and other catastrophes that predictably may afflict some but not all insureds during a certain period of time. Homeowners insurance indemnifies for losses due to fires, hurricanes, floods, etc., but when serv-

ices of plumbers, electricians, painters or carpenters are needed for ordinary repairs, insurance doesn't cover them. Insurance doesn't cover everyday wear and tear that affects everybody's home. It could, but the costs would be horrendous.

Similarly, auto insurance to indemnify someone for injuries to his person or property does not cover replacement of tires or batteries, or general wear and tear. It is interesting to note that most people have spent more on the purchase, maintenance, insurance, and running of one automobile than they have for a lifetime of health care.

If we have true health insurance similar to other kinds of insurance, properly structured to avoid everyday wear and tear, the cuts, the bruises, the checkups, the minor problems, it can indeed protect from the excessive costs following accidents, heart attacks, strokes, or cancer.

Courts have repeatedly ruled that if you don't claim your rights, then you have forfeited them. When we fail to recognize threats to our freedom to practice and when we fail to defend ourselves, our freedom is not taken from us; we forfeit it.

A recent Dale Carnegie school had an ad headlined: "Sometimes people clam up when they need to speak up." It is time for us to take our story to the public. We need enlightened public opinion, and who else can enlighten them? Our patients constitute our means of survival as a free profession. Public opinion makes public policy. It is people power creating public opinion that moves politicians.

Unless we inform that people and obtain their support, we will lose. Never was there a greater need to belong, to be supportive, to be a part of the organizations of medicine. We must demand our rights. The Constitution was designed to restrict government, not to restrict the people.

Our patients, the American people, must be educated and informed to realize that it is their health and the health of their loved ones that are being placed in jeopardy. We have the knowledge, we have a great record to be proud of, we have an unbeatable weapon—the truth. Ours is a true story. We can win *if* we talk to the people. Our success will depend upon our willingness to do so.

If we do nothing, we will lose. We can compete, or we can capitulate. Which shall it be?



Changing Trends for Hospitals, Physicians, and Medical Staffs

RICHARD F. CORLIN, M.D.

Coming from California, there are a couple of things you have to say before you begin to talk. One of them is that any people that would consecutively elect Ronald Reagan and Jerry Brown as governor obviously has a severe identity crisis. That notwithstanding, I think we do have to recognize that we're in an era of changing trends probably of far greater magnitude than any we've seen during our professional lifetime. In order to put it into perspective, there are two things we have to review.

The first is that our concerns with medical care, the public's concern with medical care, and the legislature's concerns with medical care basically fall into three general categories—quality, access, and cost. It's important to consider them in that order because that's the order in which they were dealt with. We must go back to 1910, to the Flexner report, which is one of the most spectacular documents ever written relating to medical education. It's interesting that most of the people who attack the report have never read it. If you read the report you find it very, very interesting. First of all, it has nothing whatsoever to do with medical care; it has to do with medical education. It was not written by the AMA; it was written by the Carnegie Foundation for the advancement of education. Abraham Flexner was not a physician. He had a Ph.D. degree in education, and after he had finished writing this report he went to Princeton University where he became the director of the Institute of Advanced Studies. What he found in going around the country was that there were medical schools that taught anatomy without cadavers, biochemistry and physiology without laboratories, pathology without microscopes, and medicine and surgery without hospitals and clinics. He established a

concept of an accredited medical school, and medical schools that didn't meet the accredited standards were closed. It probably did more to establish uniform, high quality medical care in this country than anything else that has followed. Unfortunately, it did have two negative side effects, but they were items that were not of concern to the American people in 1910. With very few exceptions, all the medical schools in the United States that would provide the opportunity for either women or blacks to get medical education were closed because they didn't meet the criteria, and it has taken us better than two generations to correct the situation. I think we've done a pretty good job on correcting it for women because about 31% to 32% of the freshman medical classes of the United States are women, but we still have a long way to go in correcting the white/black problem. The Flexner report established one thing: high quality medical education.

After the quality issue was dealt with, access was dealt with. Access was dealt with by a combination of two programs, one public and one private. The public program was the Hill-Burton Act and whatever its shortcomings or successes I think Hill-Burton clearly was one of the better involvements of government in medicine because it provided the physical plants where they were needed. The private program was the development of the concept of prepaid health care. I'm not talking about HMOs, but about third party insurance, which first started in the late 1920s and 1930s and then expanded nationally after World War II. It really is the original prepaid care, which provided most people most of the time the ability to get the care that they needed.

Now that we have resolved, with exceptions to be sure, quality and access, everyone has turned his attention to cost of care. In trying to do something about costs of care, the real problem is that we're going to recreate problems with quality and access.

There's a second historical perspective. What

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we are seeing now is not a creeping socialization of one aspect of medical care, nor is it just change in a reimbursement pattern. We are in the beginning of the most fundamental change in many of the aspects of the practice of medicine that any of us could ever have imagined. Government involvement in health care through the Medicare bill was not a fundamental change in health care at all, but a mechanism to provide payment for care for a segment of the population. It did not really change anything about the way health care was delivered.

Government involvement in this century in various aspects of the economy falls into several categories. In the first 15 years of this century there was clear government involvement in regulating and establishing rules and patterns for business and commercial enterprise. The 1920s was a period of the government making a concerted effort to control, regulate, and set the ground rules for transportation in this country, and they did it. In the 1930s the government made a concerted effort to control and set the ground rules and patterns for the system of money and banking in this country, and they did it. In the 1950s there was a concerted effort on the part of the government to set the ground rules and controls for dealing with the issues of civil rights, and they did it. In the 1960s the government made a concerted effort to set the ground rules to control and regulate our environment, and they did it.

In the 1980s it's health care. Whether we like it or not, the government, and more importantly industry, is saying they will no longer be the disinterested payors for the service. They want to control the system and they're going to try to regulate it and set the rules under which this system functions. They have gone from the attitude of being simply benevolent, paying a child \$5 a week allowance and letting him do what he wants, to suddenly paying him \$15 a week allowance and saying you and I are going to sit down and talk about how you spend your money. That's the attitude that business has adopted. If you ever believed that simply because of its dedication to the concept of free enterprise for itself big business in this country, and this includes present administration in Washington, cares about our independence, or self-determination—let me disabuse you of that thought.

Let us now take a look at what's occurring between hospitals and physicians, first generally;

then we will get down to some specifics. Very few people know what costs are. They make one serious mistake: they confuse costs and fees, talking about cost control when they really mean fee control. Maybe government can pass a law to control fees. I suspect they probably can. But they can't control costs, and they don't know the difference between the two. Fees are how much it costs to take out an appendix or to deliver a baby. Costs are how much it costs to take care of the people who live in the northern part of Nashville or how much it costs to take care of the people who live in southwest Tennessee. $Cost = Fees \times unit\ of\ service\ delivered$. There are two variables in the equation, and simply concentrating on controlling fees will not control costs at all. What has happened is that people have said we're going to try to control costs, and put the blame for reduced delivery of units of service or reduced access to care on somebody else, preferably the physicians.

In California the Medicaid program is called MediCal. There's a portion of the MediCal program, the MIA, the Medical Indigent Adult, although missing in action would probably be an appropriate term, to which about 85,000 members of the L.A. County MediCal population belong. By everybody's estimates about half of them were getting their care in county hospital systems and half in the private hospital system. In November of 1982, the law was changed so that all the MIA portion of MediCal could go only to the county hospital; they couldn't go to the private sector any more. So the county system geared up to handle this extra 43,000 patients. After the system changed on Nov. 1, there was no increase in inpatient or outpatient utilization by the MIA people in the county system. We could make one of three conclusions. One is that they all moved to another county, and we know that isn't the case. The second one is that they all suddenly got good jobs working for companies that provided them with health care insurance and they didn't need MediCal anymore. At a time when the economy was going down I think we can eliminate that possibility. The third and only remaining possibility is simply that these people were going without the care they needed. We are seeing clearly that in an effort to control costs, the legislature is willing to adopt regulations and laws that will limit access to health care, particularly by those people who can least afford to have it limited.

How is this affecting hospitals? The first thing

is that hospitals are now gradually falling under the DRG system, which is going to have an interesting effect. There are a lot of "experts" on the effect of DRGs. We have to recognize that the DRG system is real, it's here, and it's going to have an effect. However, if you think back four or five years, you will remember we heard the exact same things said, except that instead of the DRG it was HSA. Seven, eight or nine years ago it was PSRO. The DRGs are the latest in the series of government experiments designed to control the costs of health care. They may succeed, they may fail, but they're clearly going to be here for some period of time. I don't think we can afford the luxury of ignoring them or saying that it's not going to affect us, because clearly it is going to affect us, whether it's here for the long or the short term.

What is going to happen as the DRGs begin to affect the hospitals? I don't think four years from now it's going to be implemented the way it's envisioned now. There will be changes, but if the DRGs are effective in doing what the proponents of the DRGs claim they will do, they're going to do what the HSAs couldn't do. They're going to reduce the number of hospitals in this country. I don't believe it's going to be 1,000 hospitals as some people say. The hospitals that are particularly at risk are those with under 100 beds in urban areas. Those hospitals are going to have a great deal of difficulty coping with DRGs.

If we take a look at what is happening over the last 25 years in every year there were fewer hospitals than there were the year before and fewer hospital beds than there were the year before. All this massive spending on hospital construction has been going for development of replacement facilities, while the total number of hospital beds has been on a continual downhill curve. What will also happen in urban areas in addition to the small hospitals possibly closing is that what the HSAs couldn't do DRGs will do. We will see semi-voluntary grouping of services and regionalization of care. There are five services particularly that are going to be regionalized because they are services in which real economy of scale can save money for the hospital. Those five services are catheter laboratories, pump teams, obstetrics wards, nurseries, and dialysis units. I don't know how many hospitals there are in greater Nashville, but if you take all those hospitals that

now have any of those five services, and if the DRG system stays around for five years, fewer of those hospitals will have those five services than have them right now. If you're an obstetrician across the street from Hospital X and Hospital Y is four miles away, and Hospital X closes its obstetrics ward and nursery and gives it to Hospital Y because Hospital Y closed its catheter laboratory and all that work is done in Hospital X, that's going to have significant implications for you. That's one of the things we can look forward to seeing, simply because the hospitals are going to have to try to do the best they can to survive. We have to recognize that the hospitals clearly are not our allies in many things, but as we recognize that and deal with it, we have also to realize that if we allow ourselves to get into a fight with the hospitals we are both going to suffer seriously.

As we enter the era of PPOs and selective contracting, we see everybody doing it differently, but all are doing one thing the same and it's the one thing that insurance carriers and self-insured employers want, which is to switch hospital reimbursement to a per diem basis. That puts the risk for adverse utilization on the hospital and not on the insurance carrier or the government. That will change the hospital's attitude toward utilization review. Up until last year when a new nephrologist came into town, the hospital administrators would fall all over each other to get him to locate next to their hospital because a hospital administrator likes nothing better than to get into the hospital a diabetic with renal problems and infection so that he can prescribe some incredibly expensive antibiotic. I might tell you that one L.A. teaching hospital charges \$260 a day for moxalactam when it's given to one of their patients. They also charge \$1,700 a day as their base fee for their ICU.

All of a sudden, under a per diem system, where a hospital is going to be reimbursed on a flat rate, the attitude of the hospital administrator toward certain types of medical practice changes considerably and we're going to see the following scenario. The hospital administrator is going to turn to the medical staff and say, "We have got to develop a system for ordersheet utilization review. We cannot tolerate inefficient practices of medical care because they are going to bankrupt the hospital. Develop a system for me." The medical staff will either do it or refuse, and if the medical staff refuses, the hospital administrator will find an outside group to do it for

him. It is an issue that we cannot afford to evade. It is not an issue I like, but if the medical staffs don't do it, the hospital administrator, simply because he has to keep his hospital from going bankrupt, is going to find someone who will do it for him.

The whole issue of quality of care is very difficult. The AMA Council on Long Range Planning, about three years ago, spent almost a year trying to develop a definition for quality medical care, and we couldn't do it. But there was one thing that we were all agreed upon. That is that whatever quality medical care is, it is some type of medical care delivered in a setting of maximum efficiency. The hospital administrators and the hospitals are suddenly going to be far, far more cognizant and conscious of this than ever before.

What about the present relationship between hospitals and medical staffs? We are going to have to have medical staffs that are led by people who know what the responsibilities of leadership are—people who are going to actively and quickly and vigorously represent the people they are supposed to represent. I think the best analogy for that is the Chrysler Corporation. People will say that Chrysler Corporation survived bankruptcy and now appears to be thriving for two reasons, one the Government Guaranty Loan Program, which saved them from their creditors until they could get their house in order, and the second a very able and charismatic Chairman of the Board. I think those two reasons are correct, but there is a third; the reason that Chrysler Corporation survived was that a gentleman named Douglas Frazier led his people with such vigor and confidence that when he turned to the workers and said, "Look, there's bad news and this is what we've got to do," they stood together and followed him and didn't go off in 27 different directions at once. I believe that absent a leader like that, Chrysler Corporation wouldn't have survived. And I think that Lee Iacocca needed a man like Douglas Frazier just as in the coming years the hospital administrator needs somebody who has the confidence of the medical staff.

What will lead to that? First of all, and this may seem foolish but believe it or not there are hospitals around where this doesn't happen, the medical staff leader, the president, chairman of the staff or whatever he is called, has to be nominated and elected by the medical staff. In many medical staffs around the country, one means or

another prevents this from occurring. There are a lot of hospitals where that cannot occur. So, the first step is simply an open nomination and election process for chief of staff. Secondly, the medical staff must be given reasonable autonomy. We know that in most states the medical staff bylaws must be approved by the hospital governing body, and that is reasonable and fair. But what we are not told is that also in most states the next line of the law says "which approval shall not be unreasonably withheld." I think we have to recognize the responsibility to work cooperatively with the hospitals, but not necessarily the responsibility to accede to each and every little detailed item exactly the way the hospital administrator wants it done, because our concerns are different from those of the hospital.

Among the things that are important, are that for a variety of reasons the medical staff has access to its own separate legal counsel. The medical staff bylaws should be written by the medical staff legal counsel and submitted to the hospital, followed by any discussion or changes that need to be made. Also, medical staffs get into difficulties because peer review and disciplinary proceedings are often done in a slipshod manner, which in many states has resulted in severe court actions and irreversible problems. One of the things that should be done is to have a script for a peer review hearing written by the medical staff's lawyer and then approved and initialed by the hospital's lawyer. When a peer review hearing is held, the physician who is the subject of the hearing comes in and sits down, and the hearing officer, a member of the medical staff, reads the script. "Dr. Blank, you are here before us today because you were accused of X, X, X." Point by point a properly prepared script will avoid technical flaws in peer review which can lead not only to people being allowed to have privileges they shouldn't have but severe financial consequences both to every member of the medical staff individually and to the medical staff as an entity. There are more and more legal cases of that going on. Having a proper lawyer do it is crucial, and it's not necessarily the malpractice lawyer, because the best malpractice lawyer in town may not know a thing about hospital and medical staff law. The place that I would suggest the medical staff turn for advice is the state medical association. The medical association's legal counsel usually knows the lawyers in the area who have the best experience in this field. I don't think

you want a young lawyer who is trying to make a name for himself, nor necessarily even want a lawyer in your own home town, because you don't want to have access at the drop of a hat, since that will cost you a lot of money. We cannot expect to have hospitals paying for what the medical staff wants and needs without directing how they do it. If the medical staff wants its own separate legal counsel, if the medical staff wants to have resources available to it, then the medical staff has to be prepared to pay for it out of a dues structure generated by the medical staff and kept and held separately by the medical staff. We cannot expect the hospital to pay for these things for us.

Now, we get into the issue of medical staff involvement on the hospital's governing body. For medical staff opinion to truly reflect the medical staff, it is crucial for it to be taken into account when the hospital develops its policies. The hospital administrator has the right to develop any policies he wants, but he should be cognizant of medical staff input in the development of those policies.

I don't think the chief of staff should be on the hospital board. The official position of the California Medical Association specifically asks all hospitals in California not to put the chief of staff on the hospital board. A report from the chief of staff should be an agenda item at the board meeting. The chief of staff should have the sole responsibility for representing the medical staff to the board, not to represent the positions and policies of the board to the medical staff. We do believe there should be representation of the medical staff on the board, but not the chief of staff. I strongly believe that when it is permissible by law, physician members of the board be nominated and elected by the medical staff, not selected by the board. I know of one hospital where there are three doctors from the medical staff on the board of the hospital. One of them retired from practice about seven or eight years ago and 60% of the staff doesn't even know his name; the other two are significantly out of touch with the general feeling of the medical staff. Neither the medical staff nor the hospital board are well served by mechanisms in which individuals are selected for the hospital board.

The hospital administrators are going to have to change the paternalistic attitude that they have toward the medical staff. They are going to have

to recognize that the medical staff is an entity that has to be dealt with as an equal partner in development of policy and in development of a variety of joint ventures. As hospitals are getting into the golden world of marketing, and usually hiring a marketing person, they are coming to realize something that we've been trying to tell them for a long time. The thing they are coming to realize is that the hospital's customers are its doctors and not its patients. It is part of our problem that for too long we have concentrated on professional and ethical responsibilities and ignored the business aspects of being a doctor. We have to pay attention to that, recognizing it as important as well. There clearly is a business aspect to running a hospital, and just as in any other business, the hospital administrators are coming to recognize that they have to cater to their customers' wants and needs.

As they begin to get into the area of marketing, they are looking to change what they can to extend their financial base. The clear distinction between a hospital and the physician is changing. Hospitals are getting into more and more ambulatory services. Similarly, physicians, because we are looking to expand and protect our own financial base, are incorporating more procedures into our office practice that previously were done in hospital facilities. Almost every orthopedist in addition to having his own x-ray machine now has his own physical therapy unit. I don't say that any of this is wrong, right, or anything else; it's simply a recognition of what's happening.

In urban areas another phenomenon's occurring; more and more of the new medical office buildings are adjacent to the hospitals, so that we are coming to develop a complex, a campus as it were, where medical care is delivered. This is changing, in many people's minds, where they go for medical care. It's not, "I go to Dr. Corlin and will have to be hospitalized in St. John's." It's, "Oh, I go to St. John's and when I have stomach trouble, Dr. Corlin takes care of me." People are becoming institutionalized in their own minds as to the source of their medical care. This has significant implications for us, because the interaction between the physician and the hospital is no longer just, "I put my patients there and take care of them and go home." We've got to change the relationship between physicians and hospitals. The key is the economic joint venture.

More and more hospitals are getting involved in economic joint ventures. They are coming to recognize, as are members of the medical staff,

that the medical staff as now structured is not a proper organization to become involved in certain issues and in business dealings and joint ventures with the hospitals, but that we need parallel organizations. Neither is the medical staff properly structured to deal with PPOs coming into an area. Instead, a separate, usually incorporated, physicians association that may comprise most of the medical staff is both appropriate and necessary. We have established at our hospital an organization called the Associated Physicians of St. Johns, which will try to contract with every PPO that the hospital deals with so that we can get the subcontract to do our own utilization review. We've done this separately from the medical staff because the medical staff is not properly set up to do it, and shouldn't be. Also, there are members of the medical staff who will not deal with PPOs, and somebody is going to have to do the utilization review. The two choices are an in-house group or a group coming in on a contract basis from the outside. If we forfeit the opportunity to do it locally, then we cannot complain when somebody from the outside does it.

There are also a variety of other joint ventures, which are going to cause fractionation of the medical staff along logical and appropriate lines. For example, a hospital can build an URGICenter in either of two ways. They can build their own; they can own it and hire doctors just out of residency at X dollars an hour to work in it; or they can go to their primary care physicians, family practitioners, internists and pediatricians and say, "Look, we want to have a center here and we want to do it jointly with you. We will own the facility, contract with a group of you for medical care, pay you X dollars an hour, the members of the staff will work whatever shifts they want, you will keep the patients and follow-up will be in your own offices. They won't come back here and that's a way we can increase the number of people who visit the system and it can be for the joint benefit for the physicians and the hospital." If they want to set up a surgi-center they go to the surgeons and say the same thing; that way both can benefit from it, rather than having an outside commercial group come in and do it, which happens in many areas. Few things, however, breed cooperation more than an economic joint venture.

The bottom line of all this is that these are

truly changing times, with an attitude and of a magnitude far different from and far greater than anything we could have seen before. We are going to have to change our relationship with hospitals by a combination of being willing to work cooperatively with them in ways that we have never done before and at the same time more vigorously assert our rights and prerogatives as physicians, the members of the medical staffs. If we come up against a hospital administrator who refuses to deal with his medical staff on an equal basis, that's easy to handle. The tragedy is the medical staff that refuses to recognize its responsibilities and its opportunities. We have to recognize that the hospital is truly economically at risk in many ways, that it was not before, and that the hospital can't tolerate physicians ignoring this fact.

The hospitals took a lead over the medical profession in getting out of the cottage industry pattern a long time ago, and even the community hospitals, the religious order run hospitals, have access to big business techniques and management resources that the medical staffs haven't. Within the past few years the AMA and, in many of the states the Hospital Medical Staff Section, has begun to provide a forum for medical staff representatives to have available to them, through a medically oriented organization, the same resources that the hospitals do from a hospital-oriented organization, the American Hospital Association. I would strongly urge that each hospital send a representative to the AMA's Hospital Medical Staff Section meeting, and if you haven't yet done it, that you give serious consideration toward forming a Tennessee Medical Association hospital medical staff section. California formed one at its annual meeting. Bringing members of the medical staffs together in cooperation with the medical association can do more than anything else to strengthen the advocacy for the kind of medical practice we want, and be able to keep the kind of decisionmaking that we want in our practices. We recognize that reimbursement mechanisms may change, and really that doesn't make much difference. The problem is that along with changing reimbursement mechanisms, we are going to have people try to tell us how we should practice. That's what we have to fight against, regardless of who it is that tells it to us. Our patients deserve no less.

Market Strategies for Private Practice

RICHARD ENDRESS

I have a very limited perspective I want to take with you this morning, and that is to talk to you as business persons. In addition to being professionals, you are also engaged every day in business. At the Department of Practice Management of the AMA in Chicago, we travel around the country speaking to physicians about various aspects of running a business. I have come to very much appreciate and admire physician perspectives; I am on your side. You need to change, however—not change your basic values, not change your commitment to quality care for all your patients, not change the goals and aspirations of your profession, but many of you need to change the way you do business. You will need to change because your environment is changing. You are in the midst of what amounts to nothing less than a revolution in this country in the way in which health care is being delivered and funded, a revolution fueled by our concern with costs by a fundamental restructuring of hospitals, and by the rise of many, many alternate delivery systems which are growing tremendously. It is being fueled by a physician surplus, by the rise of a new class of health care entrepreneurs, by the advent of corporate medicine, and by a host of innovative, cost-cutting initiatives being promulgated by the people who really pay for health care in this country. The government buys basically 42% of all the health care in the country, big business buys 80% of all the private health care insurance in the country, and there is a variety of other third party payors. Each of those factors in and of itself would be enough to guarantee some fundamental changes in health care systems, but put them all together and it makes the momentum towards change more or less inevitable.

I'm going to talk today not about the whys or

wherefores of change, but how you can respond to it. Let me say first of all, parenthetically, that doctors have not been particularly successful in dealing with change. As I go across the country, I see a lot of depressed doctors and it's rather sad. You may not believe it, but you can be enthusiastic about competing in a competitive market. In some of the more competitive areas in this country right now—Minneapolis, Los Angeles, Seattle, and others—I've run across any number of very reputable physicians who find great satisfaction in putting together and delivering a service in a superior fashion in a very competitive market. In change there is a lot of dislocation, but there are also any number of opportunities created for those people who are willing to see the direction of change and to adapt to it.

Now, how do you respond creatively and innovatively to change? You do it through marketing. When you hear the word "marketing" you may think of hucksterism, advertising, selling, and so on, but that's not what marketing is. The purpose of good marketing is really to make selling unnecessary. Good marketing *really* is finding out what your patients out there need, finding out what your patients out there want—or, to phrase that a little differently, what they perceive their needs to be—and matching your services to meet those needs. If you can understand marketing in that sense I think you will agree with me that there's nothing in the idea of marketing that is inconsistent with the quality of care that all of you want for your patients. I think you will also agree that in this sense many physicians have always marketed themselves. To the extent that you have assessed your patients' needs in the past and modified your services to meet those needs, you've done good marketing. In the future you may need to do this in a little more sophisticated fashion.

There is one fundamental question I would have to ask, that is, who are your markets? Who are the real or the potential purchasers of what

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you have to offer? To a very important extent your markets are always patients. You need to know what those patients want and what they need, and you need to be able to give them that in a very professional manner. For many of you in the specialties your markets are also other physicians. You therefore have to find out what those other physicians want and what they need, and be willing to deliver that service to them in a superior fashion.

Your markets in the future, however, will be neither physicians nor exclusively patients, but they will also be the corporate benefits managers who make the decisions that will give employees differential access to physicians. You had better find out what they want, what they need. I've talked to enough business leaders to think that most of them are interested in quality care. They just want to make sure they're getting good quality care for their money. That's the way they buy everything else, and that's the way they're going to purchase health care. They need physicians to help define for them what quality care is, because they don't know.

Once you know who your markets are, you need to systematically go about marketing yourself. What exactly is marketing? Any marketing program boils down to five basic steps (Table 1), which correspond to five basic questions that any business has to ask itself. This will apply to your medical societies as well as to your individual practices. First, where are you? What is the environment in which you exist? What are the needs of your community? Who are your competitors? Who are your patients? What are other hospitals in your area up to?

Where are you? It is an easy question to ask; to answer it is rather difficult. You have to do a fair amount of market research to find out the environment in which you operate. Once you have answered that, you can go on to the second question, where do I want to go? It's a very important step. What kind of medical practice do you really want, or should you have, or can you have? What are your goals? What are your objectives, the measurable ways in which you intend to reach those goals? Only after you have answered those first two questions, can you ask, what do I need to do in order to realize those goals and objectives? If you really want to market yourself, get through those first two steps first. Get to know where you are and where you want to go. Only then can you ask, how do I get there? The fourth and fifth steps fall rather logically into

TABLE I
HOW TO DEVELOP A MARKETING PROGRAM
AN OVERVIEW

Basic Questions	Basic Marketing Steps
1. What are your choices?	1. Evaluation of current situation: identification of opportunities and challenges (i.e., market research)
2. Where should we go from here?	2. Formulation of <i>realistic</i> objective
3. How can we get there?	3. Development of market strategies
4. What will it cost?	4. Allocation of resources
5. How are we doing?	5. Monitoring of results

place. You are going to have to spend some resources to do all this, not just money but also time and energy, and you are going to have to monitor results. Once you begin to improve your service, you are going to have to ask, is it working?

Another area of marketing is your hospitals. They are aware of their own changing climate, and they are already devising plans for reacting to it. They are bringing in bright young physicians in selected specialties and putting them in strategic locations where their research indicated a specialty was needed. In some cases they are looking for joint ventures with their staffs, setting up surgical centers and urgent care centers and outpatient programs and seminar programs and workshop programs; and they are advertising and promoting. They are spending some money to do that. By now they've hired marketing directors or their equivalent, and they are monitoring results. They are counting patient censuses, they're taking patient surveys. The smart hospitals realize that they have to market themselves not only to patients but also to physicians. Hospitals in the future are going to bend over backwards to do things for their loyal physicians, physicians who are sending them patients.

Let me go back and take a look at each of these phases individually. First, in a small practice, how do you go about knowing where you are? What kind of resources are available to you? The very first thing I think you look at is your patient rec-

ords. Some of this information is already in there. For example, where are your patients coming from? If you can go down to the post office and get a zip code map and start categorizing your present patient load in terms of where they're coming from, you may find out that 80% of your patients are coming from the north side of town and only 20% from the south side of town. That might start raising some interesting questions, such as, what am I doing right in the north side of town? What makes me attractive to the kind of people in this area? Maybe you've got some competitors down in the south side of town that are siphoning patients away from you.

How do patients come into your practice?

That's pretty easy to monitor. When people first come into the office, ask them. I would say something like this: "Whom may we thank for sending you to this particular office?" If they say Mary Smith, why not drop a letter to Mary Smith and say "Thank you. We appreciate your confidence." That's not only good marketing, it's also common courtesy. You are never going to know to do that, though, unless you make an effort to find out how patients are entering your practice. You specialists, who refers to you? Keep an ongoing file of doctors who refer patients to you so that if those referrals start to drop off that's your clue to re-establish contact, and find out why your services have not been up to par.

Are you losing patients? If somebody sends a letter asking you to transfer records, I don't think it's inappropriate for somebody on your staff to call up and say "Mrs. Jones, we will be happy to send your records but may we ask please why you are changing?" If they say that they've moved ten miles away, then there is no problem, but many patients change because they are dissatisfied with their present physician or his staff. It behooves you doctors to find out why you are getting business and why you are losing it, and it's in your files.

Then, take a look at your local community demographics. As an example, I sat down with a doctor in Tallahassee three or four weeks ago, where demographics were projected forward to 1988. The geriatric population is really not going to grow much; the real growth area is going to be among patients ages 25 to 44. Then I find that 71% of the women work outside the home. Knowing those two facts alone, if I'm an obste-

trician or pediatrician, I have some real good clues as to how I can change my business if I want to be successful ten years from now.

You had also better look into things like nighttime hours. That may not be what you want to hear, but the whole purpose of marketing is not to build a business around your needs but around the needs of patients. I was in Los Angeles last fall and ran into a guy out there and I said, "Doctor, you know, in a competitive area like this by now I'm sure you've thought of going to Saturday hours." He said, "Hell no! I tried that for awhile, and everyone wanted to come on Saturday, so I cut them out!" That's *not* good marketing. Look at your competitors, look at your hospitals, keep your ear to the ground, know what your state legislature is up to.

Once you've answered the question, where am I, then you can begin to answer the question, where do I want to go? This is extremely important. What kind of medical practice do you really want? For some of you, perhaps, your goal is the maximization of income. For some of you it may be a quality of patient care that you are not willing to compromise on. For some of you younger physicians it may be a certain lifestyle or the amount of time you want to spend with your family. You've got to know what's really important to you, what you are willing to bargain with, and what you're not willing to compromise on. Put together your visions and your goals with an analysis of your environment and you can begin to develop objectives—measurable things within a definite time period that you want to accomplish. Given my environment, given what I want to be as a medical practitioner, I need, let's say, to increase patient surgical procedures by 10% over the next six months. That's a good objective. It's measurable. I can take a look at it in six months and see if I've met it. Objectives are meant to be realistic, not exercises in wishful thinking. You have to be realistic in your analysis of your present environment.

Then you will move to the third step—namely, what do you need to start doing in order to meet more effectively patient needs and wants, physicians needs and wants.

In addressing what you may need to start doing, I want first to talk about positioning your practice. In Fig. 1, I have tried to illustrate what's happening today. Things used to be pretty simple: Patients would pay physicians and then get reimbursed from their insurance company. But

things today are changing very quickly. You have third parties, insurance companies, coming directly to you with a contract saying, "Would you like to sign up with us and we will pay you, negotiate a rate, and you will abide by these restrictions. If you do it though, you will have access to patients." Or you have third parties that in some cases go into hospitals and sign contracts with the hospitals and the hospitals in turn subcontract in some kind of joint ventureship with their affiliated medical staff, or join together in cooperative networks involving their physicians. Or the hospital may sign up with a physician organization like an Independent Practice Association (IPA), paying that IPA so much per patient per month, with the provider organization in turn paying its member physicians on a fee-for-service basis. There are countless other variations of these basic ideas.

Five years from now none of you will be in a pure fee-for-service practice. Looking at this situation from your point of view, many of your patients will still be fee-for-service patients but you will be seeing many of them also on a prepaid basis. You're therefore going to have to make some very hard decisions; choosing between A and B, you may not like either choice, but depending on how you make those choices you will either have access to patients or you will not. Some of your money will be coming through capitation. It may not be very long before most of the Medicaid systems will be on a capitated basis in which you get so much per month to see Medicaid patients. You don't have to sign up, but if you don't you've lost access to those younger pa-

tients. PPOs are another new kind of delivery system. PPOs are really contracts, under which you are being asked to deliver care. I heard one speaker say recently, "If you've seen one PPO, you've seen one PPO." They are all different, and so each PPO must be evaluated on its individual merits. In Minneapolis, for example, some physicians are actually starting to look upon PPO systems as the salvation of private practice. Join the organization and let the organization get out there and market itself.

Your reaction to many of these systems will vary depending on your particular perspective. I'm not one of those people in the country who says that the private practice of medicine is dead. There always will be private practice, and the salvation of many small practices will lie in affiliation. How are you affiliated? What hospital systems are you a part of? The success of your hospitals in being able to position themselves is very important to your future. What referral networks are you tied to? You specialists had better take some pains to make sure you are tied into good primary care referral networks. What selective delivery systems, PPOs and so forth, are you a part of? Don't just join to join. In California, for example, a lot of doctors signed those contracts and are regretting it. They've gotten letters from their malpractice carrier saying, "Don't expect us to cover you under this kind of contract." Investigate it. Here's where your medical societies could be very helpful in devising committees to evaluate the contracts. But don't close your eyes to the fact that you may need to affiliate selectively with certain networks in the future. You've got to position yourself well.

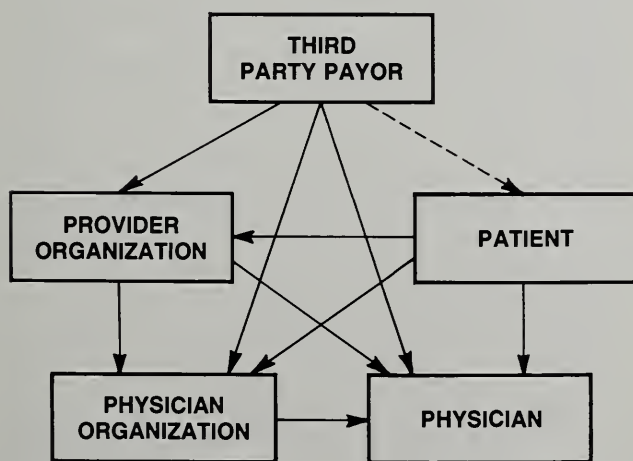


Figure 1

What else do we need to do? Every day you are engaged in an exchange process, exchanging something in return for money. What is it you are exchanging? When I asked that question a couple of years ago almost invariably the answer I would get was, "Good medical care. That's what I'm exchanging in return for your money."

Though that is the bedrock of what you're giving me, alone it is not sufficient. First of all, how many patients really are in a position to judge the quality of care they are given? And isn't it a fact that somebody could come into your office tomorrow and get the best possible medical care available and leave totally dissatisfied? If you don't give good medical care and you market the heck out of yourself you are what is commonly known as a quack. One of the unfortunate things

about marketing is that quacks have been much better at it in the past than good physicians. Good medical care alone is not sufficient. What else is needed?

Suppose for a minute I'm your typical patient. I need somebody in your specialty to care for my medical needs. As I look around in your community I see many good obstetricians, many good rheumatologists. Why should I choose you? What more can you offer me than someone else can? Good medical care has got to be there, but there are a lot of doctors that give good medical care in this community. What are some of the other things? Let's think about them. Availability. You've got to be available to me when I need you. And you specialists, substitute for the word patient the word physician—you've got to be available to the needs of those other physicians when they need you. Of course, of the three A's of practice building, after availability there is affordability. People have to like you. In the long run that may be the single most important aspect of marketing, because it's the single biggest reason why people choose you as a physician. Study after study has shown that. Either I like you or I have a friend who likes you. About two-thirds of the patients who come into your practice are going to choose you on that basis if they have a choice of physicians. Another A is affordability. Granted that right now people do not choose doctors primarily on the basis of price, and when they are dealing with life-threatening situations they never will—they want the best doctor possible—but for routine things, price is going to start being a big factor. A lot of the new delivery systems and reimbursement systems are consciously building in features that make people more cost conscious, so you had better be affordable and you certainly better be affordable for the business people who are going to be making decisions about which physicians get access to their employees and which do not.

Another factor is services. I will choose a physician who either has a more comprehensive set of services that will more effectively meet my total needs, or who has a more refined set of services particularly targeted to my specific individual needs.

Let me just go through individually what I've just outlined. Successful doctors in the future are going to be those who, all other things being

equal, are more available to patients. First of all, geographically available. Your location is vital, and for some physicians the answer may lie in relocation. Geographical availability may mean, for some larger practices particularly, the establishment of satellites, whereas for smaller practices it is not very cost effective. How then could you be more geographically available to patients? Spend a day of the week working in the nursing homes rather than making those patients come to you, or work in the industries, or find a family physician across town that takes Wednesday afternoons off and sublet his office to make it easier for patients on that side of town to get to you.

Be available in terms of time. One of the fundamental things that all physicians are going to have to start doing is looking at their appointment schedule, because people are not going to wait for you in the future the way they have waited for you in the past. Patient survey after patient tells you people do not like to wait for physicians. It used to be you had about a half hour grace period before a patient really started getting mad, but now it's down to about 15 minutes. Patients won't tell you what they really think about you. They'll tell your staff members. Ask them. Take surveys of patients. Find out what they really think about you. Any specialty—I don't care how many surgeries you have and deliveries and so forth—any specialty can operate an appointment system that works if they are willing to work at it.

You may need to consider nontraditional hours, such as evening hours, especially in the primary care areas, or Saturday hours. There are doctors in Chicago now who will see me at 5:00 in the morning if I need to be seen. They are targeted to a particular group, executives who may need or want such hours. Convenience is a major factor. Urgent care centers are nothing other than doctors' offices that have been structured to appeal to a certain kind of patient; they are expecting to have some 25% of the primary care market before very long.

Don't build your practice around it, but the selective use of house calls can be very important to some patients. If you want to take that to its all logical conclusion, why not put your practice in a van and take it around where it's needed? That won't be applicable to many of your practices, but I can show you a lot of doctors who have done that in various places.

Do you speak a second language in an area where you have non-English speakers? Let people know about it if you do; you are being available to them in a very important way. If you have any quality that would make you particularly attractive to a group of people, find out ways to let those people know it. It's important to your business. Be more available to people. Design services more specifically to meet the needs of people.

Some physicians are expanding services by redefining their specialty. For example, the American Academy of Pediatrics' primary marketing goal over the next ten years is to convince people that pediatricians are not just baby doctors, but adolescent doctors as well. Some pediatricians are finding that up to about 30% to 40% of their patient load are adolescents. Redefine what a physician is. I can show you many reputable physicians who are not just healers of the sick, but purveyors of good health; that meets a growing need. Redefine your services by targeting them to particular groups. The name of the game today in any industry is market segmentation. Don't try to be all things to all people.

How can you design service to more specifically meet the needs of particular groups? Though one-third or more of all medical dollars are spent on people 65 or over, how many physicians or health care providers have really designed services to meet the special needs of the geriatric population? Not just the medical needs, but transportation needs, the day care needs, the counselling needs, the pharmaceutical needs. The big for-profit hospital system will soon be getting involved in totally integrated services, a geriatric campus where we do everything. Why not anticipate that? There are needs of adolescents, needs of women. Find out what those particular groups need, and if you can deliver services in a better fashion, do it. You can expand your practice and services by adding products. If you are an ophthalmologist sell eye glasses, contact lenses. It can be done in a very reputable fashion. Expand your practice by looking at the growth areas in medicine. All other things being equal, where is medicine going to grow? Industrial/occupational medicine, a tremendous growth area. All businesses need health care. Somebody is going to come along and design a comprehensive set of services that more effectively meet the total needs of those businesses, such as getting people back to work—a very big need when you talk to em-

ployers.

It has been estimated that 40% of all surgical procedures right now could be done on an outpatient basis. If you are a surgeon, by all means have access to outpatient surgical facilities, either by building your own surgery center, by redesigning your office so you can do in-office surgery, or through surgical facilities in your hospitals.

Though preventive medicine won't grow in all sectors of the population, it's really going to grow among the self-insured, self-administered companies, because it saves them money in the long run to keep patients healthy rather than to heal them after they've had their heart attacks.

Sports medicine. Fitness. Nutrition. Nonphysician providers are having a field day out there because there is a real need and desire for that kind of information, and if physicians don't provide it, it will be provided by nonphysicians, reputable and otherwise.

Home health care is a tremendous growth area, and the hospitals are going to move into it very quickly as they see the need to move patients out of their acute care facilities and into home health care.

Geriatrics is the single greatest growth area of all. The National Institute of Aging estimates that by the year 2020, three out of every four health care dollars in this country will be spent on people 65 and older.

Centralized service areas in radiology and pathology. Centers that more specifically address various things, such as breast centers where people can come with questions about breast care. There are some real needs out there that could be met in other fashions than they are being met.

How can you price yourself more effectively?

First, how do you price right now? If you are honest, all of you right now engage in competitive pricing. You find out what everybody else is charging and you charge the same thing or slightly more. Very rarely do you charge slightly less than your competitors. There are other options. For example, cost pricing. Do you actually know how much it costs you to deliver a service? You're going to have to know in the future. You need to do some cost accounting and find out how much it actually costs you to deliver a particular service. One of your options, of course, when the reimbursement system is changed and you are no longer being paid on the basis of customary rates, is always to take what it costs to deliver a service

and add a reasonable amount of profit, letting that be the basis for your fee schedule. Fixed pricing is going to be a part of your future, since that's what per diems and DRGs and indemnity schedules are. They give you a fixed price for seeing the needs of particular patients per day or per diagnosis or per procedure; those that can deliver care for that amount can make a profit, whereas those who can't lose money.

You've got to know your environment and pick a pricing strategy that's consistent with your particular environment. Your pricing policies have got to be clear to you so that you can make them clear to your patients. Every year the AMA comes out with a poll on the perception people have of doctors, and you do not rate well with people when it comes to money. Only 32% of the American people in 1983 were willing to agree that physicians' fees are usually fair. Sixty-six percent said doctors are too interested in money. Now, I don't think that that's true, but it doesn't make any difference what I think because what is perceived to be real is real in its effects, and you've got to find ways of convincing people that you're on their side. You know the cost of health care is high; you do what you can to help hold down their costs and keep your fees reasonable. You have to consider things like discounting perhaps, which is perfectly legal and ethical, as are credit cards, a great service to patients in many situations.

Acceptance of assignment. I can show you good examples of doctors who have agreed to accept assignment on all patients and then have sold that idea to patients by going into the nursing homes and giving workshops on what that means to patients. They are making up in volume whatever they might lose by having to accept assign-

ment in all cases. That's important to patients. Somebody is finally sensitive to the financial needs of senior citizens.

To summarize briefly: You need to find ways of communicating with your patients by getting out into the community, by meeting people, by giving talks, seminars, and workshops, and by having good patient information handbooks. Some of you might consider more aggressive ways of getting to patients, such as mass mailings, newsletters, open houses, and participation in health fairs. Be consistent in how you present your image to patients. Advertising may be one way of communicating.

You need to increase patient satisfaction. This is important. Just take a look at every point in which a patient comes in contact with you or your staff as they go through your office.

At all these points you can do things that will either increase or decrease patient satisfaction. A satisfied patient will go out and tell five other people about it; a dissatisfied patient will tell ten other people about it. Put all those together and you have an effective marketing program. Any one thing stands only in relationship to all others.

I would like to close with this quote: "The philosophy of the divine right of kings died hundreds of years ago but moderns see it as the divine right of inherited markets. Some people still believe that there's a divine dispensation that their markets are theirs and no one else's, now and forevermore. It is an old dream that dies hard, yet no businessman in a free society can control a market when the customers decide to go somewhere else. All the king's horses and all the king's men are helpless in the face of a better product." Your challenge in the future is to devise a better product for your patients and your product is service.

The Medicolegal Climate in Tennessee

J. KELLEY AVERY, M.D.

Volumes have been written about all aspects of the high cost of medical care. All people are a part of this problem because all of us are potential patients at one time or another. In an effort to favorably influence the cost, physicians, hospitals, insurers of health care, and others in the provider community are creating a variety of systems for delivering health care. Government, the purchaser of 60% of the health care in this country, and private industry have played leading roles in influencing the shape of these varied delivery systems.

All of this effort is directed towards serving the same number of people at reduced cost with the same high quality of care now being delivered. This goal is to be accomplished almost entirely by reducing the amount of care delivered in hospitals and other institutions.

It is not likely that our society will tolerate the rationing of health care or a reduction in the rate at which new technologies come on line which have the potential of adding to the quality of our lives as well as to our life span.

The national effort to involve us all in healthier lifestyles is a massive undertaking in education which may accomplish a great deal, but it is not likely to significantly reduce the overall cost of care, particularly when one considers the cost of the educational effort itself. We may live longer and more productive lives, but eventually we will all be the victims of some degenerative process or disease. Probably no greater percentage of us will die suddenly and thereby save society the expense of our terminal care. There appears therefore to be a level of expenditure involving inflation, technology, and education which is irreducible and which will increase as time goes on.

On the other hand, not all of the elements that significantly contribute to the higher health care

costs need be so irreducible. The medicolegal climate in which health care is delivered today would seem to add 35% to 50% to health care cost, according to a report submitted in December 1983 to the Board of Trustees of the American Medical Association by its Committee on Medical Malpractice. These numbers are based on extensive research and would appear to be reasonably accurate. The cost of medical malpractice insurance is a minor element in this overall cost picture. Defensive medicine is far more significant. Defensive medicine is that type of practitioner behavior designed to reduce the likelihood of successful medical malpractice litigation. It invariably involves additional testing, additional diagnostic procedures, and additional hospitalization.

The Tennessee Medical Association conducted a survey of private practicing physicians in Tennessee designed to get the physicians' opinions as to the impact of the medicolegal climate on the cost of the care being rendered. The survey also attempted to explore the availability of a range of services in the physicians' practice and assessability of care, particularly to the medically indigent patient. About 5,000 physicians were questioned and some 1,800 responded. This nearly 40% response rate is said to be good and should lend credibility to the survey.

When asked to consider the question of the cost of care as it is influenced by the medicolegal climate, 95% of Tennessee physicians said that the threat of malpractice litigation caused them to practice defensively, ordering more tests, more diagnostic procedures, and more frequent hospitalizations. Data from the survey would support the conclusion that Tennessee physicians believe that the cost of the care that they render to the patient is increased by about 25%.

Projecting national health care cost increases from 1981 at a rate of 16% per year, the nation paid approximately \$385.6 billion from this item in 1983. Assuming the same relationship to the total national figure that Tennessee accounted for in 1978, \$9.35 billion was expended in Tennessee

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Presented at the Tennessee Medical Association Leadership Conference, Nashville, Feb. 19, 1984.

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MEDICINE AT THE CROSSROADS/Avery

in 1983 for health care. If the medicolegal climate accounts for 25% of total health care costs in Tennessee, this means that \$2.3 billion was spent to avoid medical malpractice litigation. This is about \$400 for the privilege of bringing a malpractice suit against a physician or hospital.

The cost does not end here! Indirect cost increases come about because physicians markedly reduce their scope of practice. Using the data from the survey, we believe that 16% of ob/gyn specialists have stopped delivering babies because of the medicolegal climate. In large geographical areas of our state, physicians and in-hospital services for obstetrics is virtually unobtainable. Only 28% of family physicians and general practitioners over the entire state offer a full range of services for which they feel adequately trained. In communities of 10,000 or under, this becomes 21%, or only one out of five. Taking the state at-large compared to communities of 10,000 or less, 51% to 55% offer no surgical services, 38% to 45% do no obstetrics, and 55% to 68% do no orthopedic procedures. This contraction of services is due to the medical malpractice threat. How can one measure the cost of going to a distant place to deliver a baby, have a simple fracture fixed, or get a simple surgical procedure done?

Physicians were asked whether or not the medicolegal climate affected their willingness to accept medically indigent patients. The response rate was less to this question, but 41% of those answering said, yes, their own willingness to accept medically indigent patients was indeed affected, and 99% of those affirmed that they were less likely to accept this type of patient for care.

The cost of medical malpractice insurance in some states is at crisis levels. Some ob/gyn specialists, orthopedic surgeons, neurosurgeons, etc.,

are paying over \$60,000 per year for coverage. Though this is not the case in Tennessee as yet, projecting present trends of numbers and severity of claims, the cost of average paid claims, etc., indicates that the crisis is impending. Availability of malpractice insurance is not the question; rather, the affordability of health care is of more and more concern to more and more of our people.

What can we do to make some sense out of the system that devours 60% of all payouts to support itself? Only 40% ever gets to the patient injured by medical negligence, and out of that amount comes all the cost of preparing the plaintiff's case. Fifty percent of all monies expended go directly to pay attorneys' fees.

Simply stated, we can only do two things: we can educate, and we can legislate. The former probably has more chance of success in the long run. If we can educate the people of Tennessee that these \$2.3 billion in 1983 are their dollars as a direct result of the very real threat of a medical malpractice lawsuit hanging over the heads of their physicians and their hospital, we might succeed. Whether we pay directly for medical care or indirectly through taxation to support governmental third party payment mechanisms, these dollars still come from you and me. To make physicians and hospitals the guarantors of good results of medical treatment simply cannot be supported financially by the health care professionals and institutions.

We can legislate reasonable restraints on the present court system without sacrificing the obvious benefits of our system. What restraints? This requires much study and much input from all areas of our society. The effort to educate and legislate simply must be made if we are to protect and preserve the people, the organizations, and the institutions which have given us the best health care in the world. 

Medical Ethics, Etiquette, and Discipline In a Competitive Environment

JOHN H. BURKHART, M.D.

The United States of America is a capitalistic nation. Whatever its faults it is still now as it originally began a society of self-governed free people with certain carefully preserved and highly cherished fundamental rights and freedoms. One of these is its system of doing business, which is known as free enterprise. The sine qua non of this system is competition. Compete, do a better job, offer a better value, produce a better product, and don't be backward about letting others know what you are doing. Promote, work harder, invest, risk, outdo the competition, and success is assured.

The United States of America has emerged as the seat of the unrest in the science and art of medicine, the center of change and progress. The American people have reaped a bountiful harvest of benefits from the unrelenting search for new and better ways to alleviate suffering and pain, to conquer disease, and to prolong human life. This has been the result of idealistic and altruistic competition in the science and art of medicine. Each physician competes with himself and with his colleagues so that each encounter and each procedure is an improvement over the last. The forward march of medicine has given millions a chance to live today when they might have died a generation ago.

Medicine is a restless science, always moving forward, always reaching upward towards a goal it never despairs of attaining—a world free from the fear of illness and disease that cripples, maims, and strikes men down before their time.

The American physician perpetually advances his science, because his primary mission is to preserve life. To him one life lost due to a gap in knowledge or the lack of the proper weapons with which to fight is one death too many. The medical profession and its allies have consequently developed a system of medicine in the United States without peer in any other nation or at any other period of history.

Medicine is a noble profession, and a physician is unworthy of his calling when he is less than noble. The demands upon the integrity and nobility of the physician are no less exacting than the demands upon his time and energy. His is therefore inescapably a dedicated life. It is in reality a high compliment to the medical profession that society expects so much of it, and that society is outraged when it witnesses instances of dishonor, selfishness, and lack of concern for the inadequacies of others on the part of the profession. The public takes it for granted that greatness is a constant characteristic of the physician, and nothing less than greatness will preserve medicine as a profession in the estimation of those whom it seeks to serve.

American medicine has done well in a free enterprise environment. It has progressed to become the finest in the world. It has gained and maintained respect and admiration. It has prospered. It has done this without many of the elements usually found in competitive endeavors, for it has shunned such things as secret remedies, monopolies in certain diagnostic and treatment modes, unsupportable claims, and extravagant promises. Medicine's trust and respect has been built on work instead of words, on research instead of rhetoric. Its practitioners have compet-

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ed, but quietly and with dignity, doing the best they can with the skill, knowledge and tools available to them. Their advertisement of their abilities has been through the earned respect and trust of their colleagues and their patients. Until recently this type of competition has been enough.

But as medicine has changed so have some of the factors that have influenced it. Attitudes, opinions, acceptable behavior, established principles, motivation, methods, and even laws have softened and bent to permit and even encourage practices that were viewed as totally unacceptable a decade ago. The striving in the halls of healing to meet and care for the patient load by rendering better service and building an enviable reputation is in danger of being replaced by efforts to accomplish these virtues by newer and better marketing techniques. The expanding variety of alternative methods of health care delivery, if carried to the extreme, could change the hallmark of the American medical craftsman from serving to merely selling.

Much of this new direction has come about by the threat of a surplus in physicians, allied personnel, and facilities in the near future. There is a fear in the minds of many that there may soon not be enough consumers to go around, and so the activity for competing must be stepped up. The old ways of working harder, providing better, and building a following may not be sufficient. Shortcuts might be taken, and if a few longstanding taboos fall in the process, so be it. Some have fallen, and others will fall.

But most of the pressure for increasing the competitive spirit and practices in the medical profession so as to bring them down to the lowest common denominator of all other business practices has come from consumer groups, governmental agencies, and those who feel that active competition will lower cost and therefore prices, and that this alone is justification for whatever changes will be wrought upon the traditional methods of delivery of medical care.

The American Medical Association has very clearly indicated its support for alternative methods in the delivery of health care. The AMA supports the individual physician in solo practice, in group practice, in HMOs, PPOs, IPAs, and all the rest of the alphabet soup in health care delivery. The AMA believes that competition can be

healthy as long as it is fair, ethical, and honest.

One of the first effects of the move into a more competitive environment in medicine, whether from pressure from within or from without the profession, has supposedly been the relaxation of the AMA's stand on physician advertising. From 1957 until the new Principles of Medical Ethics were adopted in 1980 there was a statement in Section 5 which said that a physician should not solicit patients, and in the Judicial Council opinions adopted by the House of Delegates supporting this section there were clear statements that the Principles of Medical Ethics proscribed the solicitation of patients or patronage. The definition applied by the House to solicitation was that it meant the attempt to obtain patients or patronage by persuasion or influence. Individual opinions concerning such things as holding an open house, sending follow-up announcements, the form to be used for announcements concerning the opening or removal of a physician's office, and the use of commercial medical directories were all delineated by the House of Delegates. One has only to read these opinions expressed by the House after the adoption of the 1957 version of the Principles of Medical Ethics, and in effect until the 1980 Principles were adopted, to be reminded that the American Medical Association condemned, in fact actually prohibited, solicitation.

Advertising is still scorned by the vast majority of physicians, but it is not prohibited by law or by ethical codes, for such prohibitions have been ruled by federal decree to be in restraint of trade, and in a capitalistic free enterprise nation this threat to competition is the ultimate sin. In fact, the 1957 Principles of Medical Ethics did not proscribe advertising as such; they only proscribed the solicitation of patients. Advertising in its broad sense meant the action of making fact, information, or intention known to the public. Solicitation, as used in the 1957 Principles, meant the attempt to obtain patients by persuasion or influence. Nevertheless, after long and protracted litigation, the Federal Trade Commission ordered the AMA to "forthwith cease and desist from" declaring advertising or "solicitation through advertising or by any other means" unethical. The FTC order does allow the AMA to develop "reasonable ethical guidelines . . . with respect to representations, including unsubstantiated representations that (the AMA) reasonably believes would be false or deceptive . . . or

with respect to uninvited, in-person solicitation of actual or potential patients, who, because of their particular circumstances, are vulnerable to undue influence."

There have been other rents, runs, and rips in the fabric of medicine, other sour notes in its music in the recent past. The time-honored, heretofore unchallenged sanctity of the patient-physician relationship has been invaded by everyone from government to the insurance industry, to hospitals, and even by other physicians seeking to breach that sacred relationship. Ignoring the long revered relationship of one physician to another too often results in patient diversion, and what was formerly meant to be a consultation becoming a referral and a referral becoming a permanent farewell. All of these departures from the older prevailing practices have been made in the name of better ways for present days.

While we have now reached the point of distinguishing medical etiquette (relations between physicians) from medical ethics (relations between physicians and patients) and have seen that some practices that were previously proscribed as unethical are just plain bad manners, physicians still need to get along with one another. Good manners or etiquette provides a method of accomplishing this.

It isn't hard to defend some of these practice changes if the yardstick applied is economics alone, but it is hard if the measuring stick is ethical behavior. This is where the individual physician has difficulty, and this is where he must carefully monitor his own ethical standards.

Whatever form competition in the delivery of health care takes in our present and future milieu of methods of delivery, the profession must always remain just that, a profession. Medicine has always been a profession, a calling, a dedicated servant of society. Its standards have, because of changing times and changing circumstances, of necessity been modified and to some extent even lowered, but they have never been

abandoned and they must not be.

Competition can be healthy. Striving to do better than a competitor is a progressive measure. But disparaging others in the field, mouthing or printing false, misleading, self-praising claims, is not healthy. It is not progressive. Above all it is unfair and unprofessional, and therefore unethical. It is beneath the dignity of a noble profession which must not lower itself to that level.

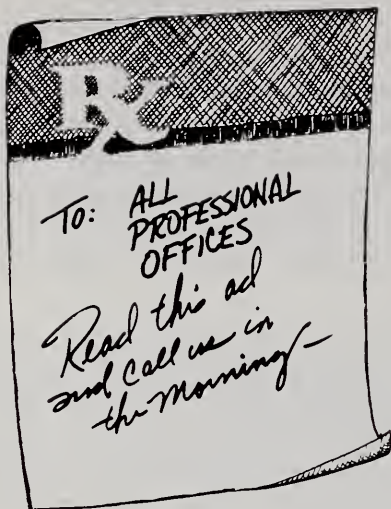
The standards and the principles of medical ethics must not be warped or bent to fit the marketplace. The marketplace will have to adapt itself to meet the bedrock requirements of medical ethics, and these are that physicians must never exploit their patients.

Fair competition exists when the same, comparable, or interchangeable goods and services are offered by the sellers of such goods and services to persons seeking them in the marketplace. The lawyers tell us that unreasonable interference with fair competition is not only unethical but unlawful as well. The honest seller of services is within the law, however, when he calls attention to those who are trying to pass off inferior services to unknowledgeable buyers of such services.

The medical profession is free to engage in disciplinary action to protect the public from incompetent physicians. Aside from the injury to the public, incompetent physicians and others who engage in quackery unfairly compete with physicians who offer competent services. The incompetent physician is not only doing physical damage by his malpractice, but he is very frankly engaged in providing services to patients who would otherwise utilize an honest practitioner.

The competitive actions of a historically old but always new, traditionally respected profession are not worth the expenditure of one calorie of energy unless basic, fundamental, ethical principles and practices prevail in any and all of these actions. For what does it profit a profession if it gain the whole world and lose its own integrity?

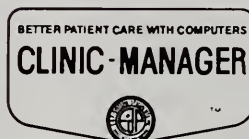




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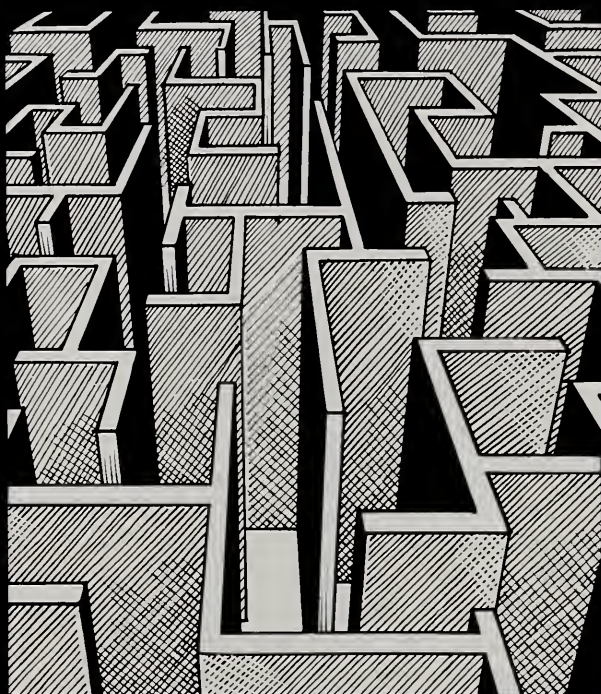


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Geriatric Abuse Intervention Team in a Family Practice Setting

CURTIS B. CLARK, M.D.

This second in a series of articles explaining and discussing geriatric abuse will deal with the formation of a Geriatric Abuse Intervention Team (GAIT) and the persons who compose it.

It had become apparent to us in our Family Practice program that many of our clients had few, if any, appropriate advocates. Though solutions could be obtained, they were very time-consuming, and delayed the much needed services to our clients. Our needs as we perceived them were threefold: to render service to our clients, to serve as role models to our residents, giving them an opportunity to be involved in the decision-making process, and thirdly, we felt that we could be a learning resource to our colleagues in the medical community and related professions as well as society.

We believe that to deal with the complex issues of the health care system, in order to be most effective the physician must work as a member of a health care team. In so doing we must be willing to broaden our own personal education as well as that of colleagues in all fields, of society, and of those who need the services of such a team.

Family physicians are trained to learn and understand families and their members well. This allows the family physician to understand the dynamics and social interactions so that he can better predict which families are at greater risk for abuse.

In 1978 a study conducted by Kosbery in Cleveland revealed about 10% of 404 clients over 60 years of age had been abused in some manner. It was apparent that some of these people

had been beaten, starved, isolated, or neglected. Block believes that elder abuse is less frequent than spouse abuse but has about the same occurrence rate as child abuse.¹

The success of the GAIT lies in many factors. A number of interested, very capable caretakers felt the need to collaborate and coordinate their services in order to accomplish this one common goal. It meant a willingness to give up some of their individuality and share with other professionals some of their authority and decision-making to better serve a patient's needs.

The original team was composed of a family physician interested in total family care, but with a personal interest in the elderly as evidenced by his interest during medical school and over 25 years with a large complement of elderly patients in his clinic, hospital, and nursing home practice. Another member of the team was a clinical psychologist who has had many years of experience in dealing with families, their interactions and dynamics, and a special interest in the problems associated with aging. There were two residents on the team; they volunteered to add their energy and expertise in geriatrics and at the same time better learn to render service to those elders in their residency clientele and finally in their permanent practice sites.

There was a registered pharmacist who also was in charge of a regional quality assurance program with the Southwest Tennessee Regional Public Health Office. The services of the regional Department of Human Services director, who has worked in this area for many years, has made a significant contribution in the discovery of cases and coordination of data collection concerning the circumstances and needs of each client, as well as aiding in protection of the individual client's rights.

From the TMA Long Term Health Care Committee. Dr. Clark is with the Family Practice Center, Department of Family Practice, University of Tennessee Center for the Health Sciences, Jackson.

Nurse clinicians who taught in our residency program served as advocates for the clients' personal, physical, and nursing needs, and brought a unique perspective of meeting human needs so often overlooked. To complete this team, a doctoral medical educator coordinated and evaluated the educational aspect, to meet the needs of the residency program and assist in the dissemination of the educational process to other health care professionals in the community and our medical schools.

One of the most significant facts concerning the dilemma of our senior citizens is how the elderly feel about their circumstances. The aged usually have positive feelings about their aging and dying. Obviously, they see youth as desirable, and tend occasionally to use denial against being old. The healthy old person seems not to experience our cultural stereotype of old age,² and it has generally been accepted that the severity of abuse is related to the amount and kinds of disability rather than age per se.

Though I have seen several definitions of abuse of the elderly, none has been more complete than the one given by Levine: "Abuse . . . is any action on the part of an elderly person's family (family being defined as any relatives related by blood, marriage or adoption, and any associated persons who have daily household contact, such as a housekeeper or roommate, or any person upon whom the elder is reliant for his daily needs of food, clothing, or shelter), or a professional caretaker to take advantage of his person, property, or emotional being through threat of violence, use of violence, or use of disciplinary restraints (i.e., physical and chemical straight-jacketing) or negligence on the part of the caretaker to provide basic needs."² They designated persons over 60 as elderly in their article.

It seems to be generally accepted that the British have been on the forefront of geriatric care, and especially rehabilitation of the older person. Baker in England has coined the now accepted term "granny battering." He chose this term to bring attention to the reality "that old ladies might be ill-treated not only by short-tempered relatives, but also by well-meaning hospital staff."²

It has been estimated that 500,000 persons aged 65 or older who live with relatives are now being abused. Abuse of the elders is at the hands of relatives, neighbors, and friends. Abuse of these persons is multiple.²

In our work with our team we have seen abuse

in many forms, including psychological, physical, financial, and general neglect, which is particularly difficult to detect and also difficult to evaluate. Even though we suspect that abuse has occurred, isolation of these persons and their mental status make documentation and evaluation very difficult when trying to find fair and appropriate disposition.

The first point is that we must make all persons aware and to personally, realistically face the simple fact that time will make each of us an older citizen. As long as we ignore that, our chance of success has been lessened. Only after education of the public, persons in government, and health care services, can we expect to remove this blight on our society and bring geriatric abuse out of the closet to its proper state of awareness.

GAIT may fail to function for several reasons. One problem has been that for so many years physicians have been the only persons to make decisions about patient care, because it is difficult for physicians and other health care professionals to share these responsibilities. The various disciplines may see a problem in a different light, making negotiations necessary before a final plan can be effected. It is also more time-consuming when meetings must take place before a final decision is reached, even though the decisions are generally more appropriate.

Power struggles within the team itself can be very destructive. To be able to function most successfully, each member must know and feel that the patient's needs can best be served by the interdisciplinary team approach.

We believe our experience has now been successful and has served our clients' best interests. We have been careful to see that emotionalism and sensational aspects have been left aside, and have tried to use the same logical steps and decisions that a physician would use in his approach to a medical problem. Our basic proposal is that in all communities such a team could be assembled from available interested and knowledgeable people. The necessary ingredients are caring about people, a basic knowledge of their needs, and a desire to respect and cooperate with all team members sharing equally in the decision-making—The Principles of Democracy.

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Medicaid's Second Surgical Opinion Program

PEGGY A. ALSUP, M.D.

The Tennessee Medicaid Program costs continue to expand at a rate in excess of that of all other state programs. Although the escalation of public and private health care costs are of concern to everyone, Medicaid officials must try to stretch their limited budget to respond to inflation as well as an ever-increasing demand for services. The realization of limited funds, an inherent desire to operate a cost-effective program, and externally imposed imperatives have dictated that measures be implemented each year to control expenditures. These measures have been developed and executed in such a way as to minimize any adverse impact on the quality of care or provider participation.

The Second Surgical Opinion Program has been established to afford the Medicaid recipient in Tennessee the opportunity to obtain another opinion regarding certain elective surgical procedures. The following five procedures have been designated to require a second opinion because there is frequently a significant difference of opinion among physicians about the necessity of performing these procedures: hysterectomy, hernia repair—inguinal, tonsillectomy and adenoidectomy, dilatation and curettage, and cholecystectomy.

This program is intended to control the utilization of services, and in so doing, reduce Medicaid costs without any compromise in the quality of care delivered to the recipient. Most importantly, avoiding unwarranted surgical procedures eliminates the occurrence of certain morbid states and mortalities. This program allows the Medicaid recipient to be better informed and to make his own choices about recommended surgery.

Unlike other Medicaid Second Surgical Opin-

ion Programs, in which intermediaries, foundations, or external consultants are used, the Tennessee program follows an uncomplicated approach relying on the sentinel effect to reduce the performance of unconfirmed surgery. It is modeled after the highly successful Missouri Second Surgical Opinion Program. Therefore, if the second opinion differs from the first and does not recommend surgery, Medicaid will still reimburse for the procedure if the patient and first physician elect to proceed with surgery.

It has been estimated that on a national basis, the number of unwarranted surgical procedures in 1979 amounted to 2.38 million, with a cost of \$2.72 billion.¹

In Tennessee, during the first 12 months of operation, a net savings of \$1.2 million is projected. This is based on an anticipated 20% reduction in performance of selected procedures. Any physician who participates in the Second Surgical Opinion Program must be enrolled in the Tennessee Medicaid Program. The first opinion may be rendered by any qualified physician (surgeon or non-surgeon). The second opinion must be rendered by a physician qualified in the appropriate specialty. Board certification is not required in order to participate in this program. Physicians who provide services may be in group practice or may have an institutional connection; however, we are encouraging recipients and physicians to obtain second and third opinions from physicians who are not in association with each other.

A second surgical opinion is not required for Medicaid reimbursement for any one of the specified surgical procedures if the recipient must travel more than 40 miles or one hour in order to obtain the second opinion. Medicare/Medicaid recipients are excluded from the requirements of

From the Tennessee Department of Health and Environment, Nashville. Dr. Alsop is the Department's Medicaid Medical Director.

(Continued on page 539)

EKG of the Month

W. BARTON CAMPBELL, M.D.

A 42-year-old woman who had a syncopal episode 24 hours prior to admission was admitted to a community hospital with third degree heart block with a rate of 30. After a temporary pacemaker electrode was placed percutaneously via the right subclavian vein she was transferred to St. Thomas Hospital for more definitive therapy. This electrocardiogram was taken just after transfer (Fig. 1).

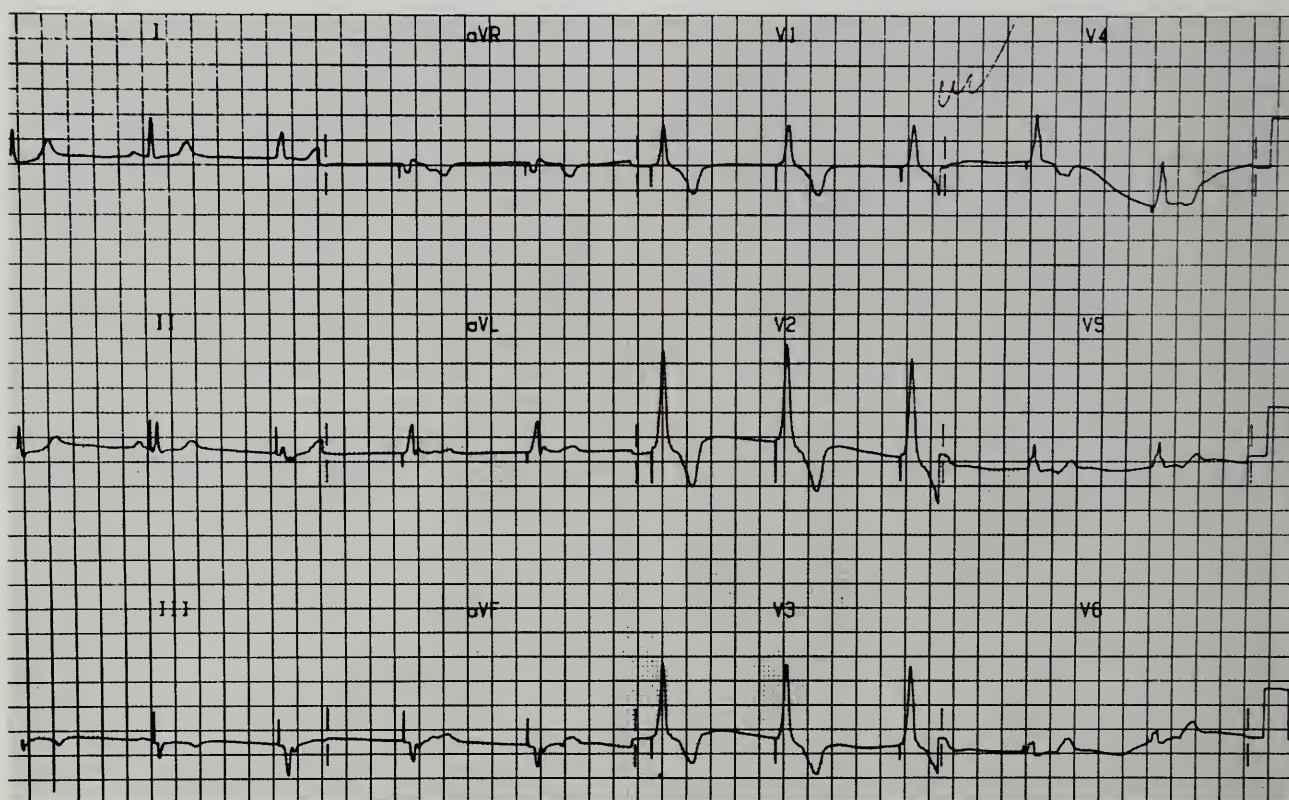


Figure 1

Discussion

A ventricularly paced rhythm is present with a pacing spike preceding each QRS complex. P waves are present without obvious ventricular capture, although the second beat in simultaneous leads I, II and III has a narrowed configura-

tion and likely represents a fusion of paced and captured beat. The low amplitude pacing spike is compatible with a bipolar pacemaker. (Unipolar pacemakers result in much larger spike voltage.)

Pacing electrodes are commonly placed in the apex of the right ventricle. An electrode in the normal position will produce a leftward posterior orientation of the QRS forces (as the origin of pacing is in the rightward anterior portion of the heart). An unusual finding on this tracing is the

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.



Figure 2

prominent R wave in V_1 and V_2 generated by anterior QRS forces. The anterior QRS force seen in Fig. 1 strongly suggests ectopic position of the pacing electrode, usually reflecting left ventricular pacing.

A PA and lateral chest film (Figs. 2 and 3) discloses the pacing electrode to have a strikingly posterior but midline orientation. This electrode has been inadvertently placed via the coronary sinus into the middle cardiac vein. The posterior electrode location generates abnormally anterior QRS forces resulting in prominent paced R waves in V_1 .



Figure 3

The temporary electrode was removed and replaced with a permanent electrode and pulse generator.

IMPRESSION: Ventricular pacemaker functioning normally with ectopic electrode position.

Health and Environment Report . . .

(Continued from page 537)

this program. The specified surgical procedures are exempt from the requirements if they are performed incidental to a more major procedure.

Although the Second Surgical Opinion Program is mandatory, it is structured so that the physicians involved have the greatest possible

opportunity to exercise their professional judgments without the intervention that an overly regulated and organized program would impose.

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Elective Sterilization: No Guarantees

J. KELLEY AVERY, M.D.

A 32-year-old, para 3, gravida 3 presented herself to her gynecologist requesting a tubal ligation. A thorough examination at that time revealed no contraindications for surgery or general anesthesia. The patient and the doctor discussed various methods of sterilization. The patient elected a method designed to occlude the fallopian tubes. Admission was arranged for one month later and the patient was given a booklet written by the manufacturer of the occlusion device to read in the interim. The booklet described the procedure and its risks and benefits.

The patient was admitted as previously arranged. During evening rounds, the physician asked if she had read the booklet to which the patient replied, "yes." She was asked if she had any questions and she answered, "no." The doctor then had the patient sign a standard consent form, and the patient was taken to the operating room the next morning. Following routine skin preparation and drape, the abdominal cavity was inflated and the laparoscope inserted. The occluding device was placed over the loop of each tube. There were no anatomical abnormalities and visibility was good.

The patient was seen for follow-up visits as instructed and continued to see the doctor on a regular basis for annual check-ups. When it was discovered on one of the routine visits that the patient was pregnant, she filed suit for alleged negligence in performing the tube occlusion surgery and for breach of warranty.

The physician testified at the trial that he had never personally read the booklet that he gave his patients, but had assumed it explained the procedure better than he could. The patient testified that the doctor had asked if she had read

the booklet, but denied saying she had. In fact, although she could sign her name, she could not read. In addition, she stated that the doctor had said this procedure was intended to be permanent. Her attorney further relied on the booklet that the doctor had given the patient, which stated, "If applied properly, this device will not fail."

Loss Prevention Points

The real issue in this case is informed consent. The patient, surprised by an unexpected result, claimed her doctor was negligent. The facts do not point to negligence in his performing the procedure, but there is no record or documentation of informed consent. Not only did the doctor rely on a written booklet prepared by the manufacturer of the occlusion device, he had not read the booklet and did not follow up with his own comments to be certain the patient understood. *Informed consent is a process.* It requires that the patient receive enough information to make an informed decision about what the doctor will do. Without sufficient information, the patient may be surprised at the outcome and might sue the doctor, claiming that if only she had known of the risk, she would not have consented to that procedure or might have opted for another course of action.

Doctors can also find themselves with legal problems if they make statements that the patient construes as warranties or guarantees. Apparently the doctor did not explain to the patient that, although sterility was the intended result of the procedure, there is absolutely no guarantee that this will be the case. The doctor should have explained that although the failure rate is less than 1%, there is always the chance of pregnancy, even after the surgery is properly performed. The patient should also be told that the body itself will attempt to repair any injury to its repro-

Dr. Avery is the medical director of State Volunteer Mutual Insurance Company.

ductive system, so that she understands that future pregnancy does not automatically mean her doctor improperly performed the procedure. Here the doctor allowed a booklet, which he had never read, to speak for him that "if applied properly, this device will not fail." No surgical procedure should ever be guaranteed.

Once the doctor has fully discussed the procedure and its benefits and risks with the patient, the discussion should be documented. Many doctors have their patients sign a form indicating that such a discussion has taken place, that the patient understands what will be happening, and agrees to the procedure. Certainly, this docu-

mentation would be acceptable if it specifically covers the discussion with this particular patient. The preferred informed consent documentation is a note in the patient's chart stating that the doctor discussed the procedure, its benefits, the risks of having or not having the procedure, and any alternatives, with the patient, and that she understood and agreed to go ahead. A note made by the doctor shortly after such a discussion cannot be later undermined by the plaintiff's attorney, whose witness testifies that, yes, she signed the informed consent form, but did not read it and/or did not understand what she was signing.



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THOMAS K. BALLARD

House Calls

Before the advent of hospital emergency rooms, freestanding emergency centers, and outpatient departments, there was once an entity called a house call. There are many of us who still make house calls to see our patients who are unable to come to us for their care. I will be the first to agree that sometimes it is not advantageous for the patient to be seen on a house call. I will also be the first to agree that there are certain patients who need to be seen in the home. There are those who are physically unable to come to our office, who can be seen in the home. When you are on a house call you have the contents of your physician's bag, your eyes, your hands, your ears, and your mind to help you. You will go in and see the patient's surroundings, his family, how he is cared for, and then you will examine the patient. By the use of your stethoscope, your sphygmomanometer, your hands, and your eyes, you will examine the patient, make or confirm a diagnosis, and prescribe if necessary. Often this will be the only chance that you as a physician will have to see the family members who care for your patient, to establish a rapport with these individuals which can help you assess your patient's needs, and help evaluate the type of care which your patient should have. Often you will be asked to have a cup of coffee, or a piece of strawberry pie, and then a few minutes conversation with the family about your patient's condition, prognosis, and specific areas in which the family can help in the care of your patient. This gives you a chance to relax for a few moments and to reflect.

I wonder if the medical profession itself needs to have a house call. A time when we can use our hands, our eyes, our ears, and our minds, to reflect upon the conditions in which we find ourselves today. We need to reflect upon where we have been, upon where we are at the present time, and what the future holds for the practice of medicine. We need to stop for a moment and think through the circumstances in which we find ourselves today. It has been said that the practice of medicine changes every five years, and I firmly believe this. There are ever-changing treatment regimes, new medications, and techniques, which apply to our patient care. There are new skills to learn which through our hands can benefit our patients; these include new surgical techniques, new diagnostic procedures, and new treatment procedures. By the use of our eyes we can benefit from the research of other practitioners and learn from their experience to better the practice of medicine; this includes the use of our medical journals, continuing medical education programs, video clinics, and enduring materials. It is difficult to find the time to keep up with all of the fields of medicine in these busy times. I have found, in my association with medical students and family practice residents, that I am stimulated by them to learn each day. We need to use our minds to think of new ways to protect our patients from the many factors eroding our practices.

Yes, I think the medical profession can benefit from a house call. I think if we will stop, look, and listen, as we once did on a house call, we can benefit not only ourselves, but can help the entire medical profession.

Thomas K. Ballard MD

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SEPTEMBER, 1984

editorials

To a Mind Unossified

I have frittered away enough travel time in traffic jams to appreciate the interstate system, though I must say the interstates have not entirely solved the problem. It has frequently simply changed the venue, as at least twice each day the interstates become one vast parking lot. Never-

theless, without the interstate highways the city streets could not hope to handle the flow of traffic, and so despite inconveniences and dislocations, most Nashvillians are happy to see the long delayed intracity outer loop taking shape.

For the past 15 years or so I have followed a route to work that took me mostly along tree-lined side streets through quiet residential neighborhoods, thereby avoiding the press of traffic on the major thoroughfares. It was a circuitous route, not made for time-saving except in the most vicious moments of the to-and-fro rush, but it allowed the attention to stray occasionally from bumpers fore and (in the mirror) aft to shaded green lawns flowered with dogwood, crepe myrtle, and so on, the glare softened by overhanging boughs and the air scented with other things than burning hydrocarbons. Depending upon the time of day, the trip either began or ended in Centennial Park.

Though portions of it are still intact, all I have left of much of that route are fond memories. It is one of the victims of progress, one of the inconveniences that pay for the interstate, which cuts across every access from suburbs to city. The inconvenience is a minor thing, to be sure, one not even to be compared with the major dislocations suffered by evicted families and businesses, but important just the same. Some of the course will remain largely unchanged after the streets are repaved from the disruption of sewer lines. Other landmarks, including one imposing Victorian mansion, are gone forever, to live only in the memories of those who enjoyed them in one way or another.

The landscape generally changes imperceptibly—a house gone here, a tree there, a new condominium instead of a stately home—or, contrariwise, a new facade for a dilapidated dowager, new flowering shrubs or trees, and so on. Mostly, though, the scenic portion of my drive home has constricted steadily with the inexorable urban sprawl out into the suburbs. Interstates take a big chunk. There is ever less open space on which to spread a pristine snowfall, for instance, or places to watch the first autumn frost tip the maples with red and gold. As the memory machine begins to run out of fuel, the memory bank develops a negative flow, a situation that could stultify.

When I was small I was given a set of books entitled *My Book House*. To introduce its wonders, in the front of volume one was a quotation that said, "The world is so full of a number of

things, I am sure we should all be as happy as kings." Regardless of the verity of the second statement, the first is sure enough so. Whenever one input terminal is frozen or clogged, others always spring up to take its place. Like my daily travels, things in general change here a little, there a little, and sometimes a lot. With current means of communication, though, no matter how landlocked one becomes, a world full of wonders is always open to him. There are so many ways the mind can soar over oceans and mountains and even leap far into space that the possibilities for the memory bank are virtually limitless. Though they are certainly something less satisfying than being there, they will do in a pinch.

Aging is due to many things, and there is no help for it. Aging is a matter between the calendar, the genes, and the environment, and likely many imponderables as well. But aging and growing old are not the same thing. I have an idea that, barring accidents, growing old is unnecessary—that it is not so much due to ossification of our arteries as of our memories and our visions and dreams, and we can certainly do something about that.

J.B.T.

there—a situation they share with every other mortal being, only with greater immediacy.

With the characteristic optimism of youth, the children, particularly the St. Jude's contingent, have urged a name change to Camp Hope. They believe, you see, that their situation is no longer hopeless, and for some of them that is true. It is true due to the time, effort, and money invested in their welfare by, among others, countless ACS volunteers and donors, scientists working to unlock cellular secrets, and clinicians who apply their data.

These young cancer victims have hope not just because of natural optimism. A few short years ago the outlook for almost every one of them was bleak. Now at least some of them have reason to be hopeful, and the situation is improving all the time. The end we all look to is for ole Camp Whazisname to be no more than a memory from the days when children had cancer. That time seems closer, but the cells guard their secrets carefully, and their workings are intricate indeed. Nevertheless, bit by bit the picture is beginning to fall into place.

In the meantime, what we need to be sure of is that we continue both corporately and individually to do whatever we can to merit the trust that prompted those children's wish to rename the camp.

J. B. T.

From Remission to Hope

Down in White Bluff—or perhaps better, *up*, since it is on the highland rim—in the beauty of the hills of Middle Tennessee the American Cancer Society (ACS) invests several thousands of your dollars each summer in a camp for children with cancer. For the rather obvious reason that the disease in the children who come there is in remission, the camp is named Camp Remission. The children look like any other happy group on an outing as they canoe on the lake, hike in the woods, or play ball. They are very like your own more fortunate children. They can be themselves and forget their plight for the moment because among their cancer-ridden peers they have neither to pretend nor be defensive. They gain courage from one another, and from the older or more experienced the younger ones learn to cope with their disease. Without exception they look toward next year's camp with eager anticipation, even while recognizing that not every one will be



Paul H. Cardwell, age 85. Died March 30, 1984. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

Haskell W. Fox, Sr., age 75. Died July 14, 1984. Graduate of the University of Maryland School of Medicine. Member of Greene County Medical Society.

William Templeton Howard, age 71. Died July 15, 1984. Graduate of Emory University School of Medicine. Member of Memphis-Shelby County Medical Society.

Matthias (Matt) Brickell Murfree, age 66. Died July 12, 1984. Graduate of Vanderbilt University School of Medicine. Member of Rutherford County/Stones River Academy of Medicine.

Donald Wilson Oelker, age 78. Died July, 1984. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

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Waldemar Kutzner, M.D., Collegedale

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Donald E. Lighter, M.D., Knoxville

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Samuel McQueen, M.D., Hermitage
Patrick W. Meacham, M.D., Nashville
Howard H. Rosenblum, M.D., Nashville
Mary Ann Snowden, M.D., Nashville
Fredia S. Wadley, M.D., Nashville

(Student)

David M. Coussens, M.D., Nashville

SULLIVAN COUNTY MEDICAL SOCIETY

Steven W. Morgan, M.D., Bristol

WASHINGTON/UNICOI/JOHNSON COUNTY MEDICAL ASSOCIATION

Peter Haibach, M.D., Mountain City
John L. Whitlock, M.D., Mountain City

TMA Members Receive AMA Physician's Recognition Award

Twenty-six TMA members qualified for the AMA Physician's Recognition Award during June 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA

Dave A. Alexander, M.D., Nashville
James S. Bell, M.D., Memphis
Patricia M. Bihl-Miranda, M.D., Nashville
Thornton E. Bryan, M.D., Memphis
Charles C. Chitwood, Jr., M.D., LaFayette
John J. Craven, M.D., Knoxville
John P. Curlin, M.D., Jackson
Richard A. Dew, M.D., Oak Ridge
Mary C. M. Dundon, M.D., Hendersonville
Nicholas-John Economides, M.D., Memphis
Howard R. Foreman, M.D., Nashville
Roland W. Gray, M.D., Nashville
Richard A. Krause, M.D., Chattanooga
Raymond F. Mayer, M.D., Memphis
William C. McAfee, M.D., Jackson
Augustus L. Middleton, M.D., Jackson
William H. Morse, M.D., Memphis
George M. Ryan, Jr., M.D., Memphis
Richard J. Sanders, M.D., Nashville
James W. Sherrell, M.D., Chattanooga
Brent A. Soper, M.D., Madison
Radford C. Stewart, III, M.D., Nashville
Charles A. Stilwell, Jr., M.D., Franklin
Dean G. Taylor, M.D., Nashville
James L. Thomas, M.D., Jackson
James H. Waters, Jr., M.D., Knoxville

announcements

CALENDAR OF MEETINGS

NATIONAL

Oct. 7-10	American Neurological Association—Hyatt Regency, Baltimore
Oct. 7-11	American College of Chest Physicians—Anatole, Dallas
Oct. 8-10	Emergency Medicine Today '84 (sponsored)

	by N.C. Dept. of Human Resources)—Winston-Salem, N.C.	Oct. 27-Nov. 2	American Society for Clinical Pathologists—Marriott/Sheraton, New Orleans
Oct. 9-12	American Academy of Family Physicians—Crown Center Hotel, Kansas City, Mo.	Nov. 1-3	Association of Planned Parenthood Professionals—Marriott Hotel, San Antonio
Oct. 9-12	Cardiac Rehabilitation Symposium (sponsored by East Jefferson General Hosp.)—Marriott, New Orleans	Nov. 1-3	Society for Ear, Nose and Throat Advances in Children—New Orleans
Oct. 9-14	American Society of Maxillofacial Surgeons—Hilton, Las Vegas	Nov. 3-6	Eye-Bank Association of America, Palmer House, Chicago
Oct. 9-14	American Society of Plastic and Reconstructive Surgeons—Convention Center, Las Vegas	Nov. 4-7	Southern Medical Association, New Orleans
Oct. 10-13	American Association for Cancer Education—Marriott, Tarrytown, N.Y.	Nov. 4-8	Association of Military Surgeons of the U.S.—Town & Country, San Diego
Oct. 10-13	American School Health Association—William Penn, Pittsburgh	Nov. 5-10	American Society of Cytology—Atlanta Hilton
Oct. 12	Selected Topics in Pediatrics (sponsored by Eastern Virginia Medical School/Children's Hospital of the King's Daughters)—Norfolk, Va.	Nov. 6-10	American Epilepsy Society—Hyatt Union Square, San Francisco
Oct. 13-16	National Perinatal Association—Hyatt Regency, Dearborn, Mich.	Nov. 7-10	International Society of Ophthalmic Ultrasound—St. Petersburg Beach, Fla.
Oct. 13-17	American Society of Anesthesiologists—Hilton, New Orleans	Nov. 11-14	Academy of Psychosomatic Medicine—Bellevue Stratford, Philadelphia
Oct. 17-20	American College of Emergency Physicians—Hyatt Regency, Dallas	Nov. 11-15	American Academy of Ophthalmology—Convention Center, Atlanta
Oct. 17-20	Clinical Orthopaedic Society—Fairmont Hotel, New Orleans	Nov. 11-15	American Public Health Association—Anaheim, Calif.
Oct. 19-24	American Association of Blood Banks—Convention Center, San Antonio, Tex.	Nov. 12-14	International College of Surgeons, U.S. Section—Pointe Resort, Phoenix
Oct. 21-26	American Congress of Rehabilitation Medicine—Sheraton, Boston	Nov. 12-15	American Heart Association—Miami Beach
Oct. 22-25	Interstate Postgraduate Medical Association—MGM Grand, Las Vegas	Nov. 13-18	American Medical Women's Association—Waldorf Astoria, New York
Oct. 22-27	Society of Clinical and Experimental Hypnosis—Hilton Palacio del Rio, San Antonio, Tex.	Nov. 16-20	Gerontological Society of America—Convention Center, San Antonio
Oct. 23-27	Association of American Physicians and Surgeons—Williamsburg Lodge, Williamsburg, Va.	Nov. 25-30	Radiological Society of North America—Convention Center, Washington, D.C.
Oct. 24-28	American Academy for Cerebral Palsy and Developmental Medicine—Sheraton, Washington, D.C.	Nov. 29-30	American Society of Dermatopathology—Washington, D.C.
Oct. 24-28	American Academy of Neurological and Orthopaedic Surgeons—Caesars Palace Hotel, Las Vegas	Nov. 30-Dec. 3	American Society of Contemporary Ophthalmology—Sahara Hotel, Las Vegas
Oct. 25-26	American College of Clinical Pharmacology—Franklin Plaza, Philadelphia		

STATE

Oct. 1-2	Tennessee Valley Medical Assembly—Chattanooga Choo Choo
Oct. 4-5	Tennessee Society of Internal Medicine—Hermitage Hotel, Nashville
Oct. 14	Tennessee Psychiatric Association—Opryland Hotel, Nashville
Nov. 5-9	Tennessee Academy of Family Physicians—Gatlinburg

TENNESSEE MEDICAL ASSOCIATION 150TH ANNUAL MEETING

April 10-13, 1985

Hyatt Regency Hotel, Memphis, Tennessee

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, 112 Louise Ave., Nashville, TN 37203.

IMPORTANT NOTICE

Published in this section are all educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

IN TENNESSEE

VANDERBILT UNIVERSITY

Clinical Training Program

Opportunities for advanced clinical education for physicians in family practice and in various subspecialties have been developed by the School of Medicine and the Division of Continuing Education of Vanderbilt University. The practicing physician, with the guidance of the participating department chairman, can plan an individualized program of one to four weeks to meet recognized needs and interests. The experience will include contact with patients, discussion with clinical and academic faculty, conferences, ward rounds, learning individual procedures, observing new surgical techniques, and access to excellent library resources. Experience in more than one discipline may be included.

Participating Departments and Divisions

Allergy and Immunology	Samuel Marney, M.D.
Anesthesiology	Bradley E. Smith, M.D.
Cardiology	Gottlieb C. Friesinger, III, M.D.
Chest Diseases	Kenneth L. Brigham, M.D.
Clinical Pharmacology	John A. Oates, M.D.
Dermatology	Lloyd E. King, M.D.
Diabetes	Oscar B. Crofford, M.D.
Endocrinology	David N. Orth, M.D.
Gastroenterology	Dewey Dunn, M.D.
General Internal Medicine	A. W. Anderson Spickard, M.D.
Hematology	Sanford B. Krantz, M.D.
Medicine	John A. Oates, M.D.
Neurology	Gerald M. Finichel, M.D.
Obstetrics and Gynecology	Lonnie S. Burnett, M.D.
Oncology	F. Anthony Greco, M.D.
Orthopedics	Daniel M. Spengler, M.D.
Pathology	William H. Hartmann, M.D.
Pediatrics	David T. Karzon, M.D.
Preventive Medicine	William Schaffner, M.D.
Psychiatry	Michael H. Ebert, M.D.
Radiology	A. Everette James, Jr., Sc.M., J.D., M.D.
Computed Tomography	Max I. Shaff, M.D.
Magnetic Resonance Imaging	C. Leon Partain, M.D., Ph.D.
Nuclear Medicine	C. Leon Partain, M.D., Ph.D.
Ultrasound	Arthur C. Fleischer, M.D.
Renal Diseases	Richard L. Gibson, M.D.
Rheumatology	Theodore Pincus, M.D.
Surgery	
Cancer Chemotherapy	Vernon H. Reynolds, M.D.
General	John L. Sawyers, M.D.
Neurological	George Allen, M.D.
Ophthalmology	James H. Elliott, M.D.
Oral	H. David Hall, D.M.D.
Otolaryngology	Ronald Cate, M.D.
Pediatric	Wallace W. Neblett, M.D.
Plastic	John B. Lynch, M.D.
Renal Transplantation	Robert E. Richie, M.D.
Thoracic and Cardiac	Harvey W. Bender, M.D.
Urology	W. Scott McDougal, M.D.

Eligibility: All licensed physicians are eligible. **Credit:** AMA Physician's Recognition Award (Category 1) and AAFP Continuing Education Accreditation. **Application:** For information and application contact Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

Continuing Education Schedule

Oct. 15-31	Obstetrics and Gynecology in China (40 hours)
Oct. 19-20	Annual Fall Pediatric Symposium
Oct. 25-26	Medical Alumni Reunion Annual Meeting
Nov. 29-Dec. 1	Oncology Symposium
Dec. 7-8	High Risk Obstetrics Seminar and the Everett M. Clayton Memorial Lecture

For information contact Registrar, Continuing Medical Education, Vanderbilt School of Medicine, CCC-5316 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

MEHARRY MEDICAL COLLEGE

Extended Continuing Education Program

Arrangements have been made with the following services and departments in the medical school to allow practicing physicians to participate in that service's activities for a period of one to four weeks. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Participating Departments

Anesthesiology	Mireille Lecorps, M.D.
Family Practice	John Arradondo, M.D.
Internal Medicine	
Cardiology	John Thomas, M.D.
	Joseph Hinds, M.D.
	Paul Alexander, M.D.
Chest Diseases	Joseph M. Stinson, M.D.
	Paul A. Talley, M.D.
Dermatology	Thomas W. Johnson, M.D.
Gastroenterology	Ludwald O. P. Perry, M.D.
	Buntwal M. Somayaji, M.D.
Hematology/Oncology	Robert S. Hardy, M.D.
Neurology	Calvin L. Calhoun, Sr., M.D.
	Gregory Samaras, M.D.
Obstetrics and Gynecology	Henry W. Foster, M.D.
Ophthalmology	Axel C. Hansen, M.D.
Orthopedics	Wallace T. Dooley, M.D.
	Patrick Lecorps, M.D.
Pathology	Sheldon Epstein, M.D.
Pediatrics	Festus O. Adebajo, M.D.
Surgery	
General	Louis J. Bernard, M.D.
Neurological	Charles E. Brown, M.D.
Thoracic and Cardiovascular	Ira D. Thompson, M.D.
Urology	Harvey Butler, M.D.

Application: Henry Moses, Ph.D., Director, Continuing Education, Meharry Medical College, 1005 D.B. Todd Avenue, North, Nashville, TN 37208, Tel. (615) 327-6235.

BAPTIST MEMORIAL HOSPITAL

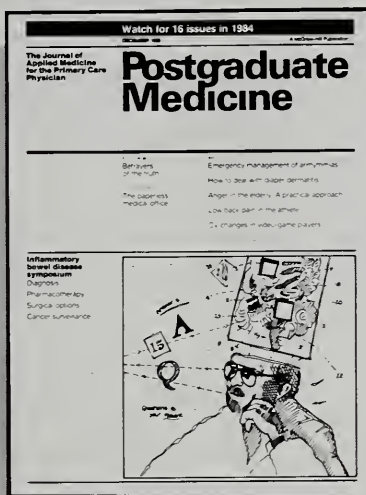
Oct. 12-13	Impotence
Oct. 26	Stroke Rehabilitation
Nov. 1-2	Rheumatology
Nov. 14-15	Neonatal/Pediatric Respiratory Care
Nov. 16-17	Nuclear Medicine

For information contact Richie L. Nelms, CME Coordinator, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146; or call toll-free (800) 542-6848 in Tennessee, or local number (901) 522-5635.

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The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act-P.L. 94-445, effective 1/1/77, with the exception of the Hawaiian Conferences, which conform to the requirements of P.L. 97-424.

24 CME CREDITS

- ☐ *Jan. 9-19 (from Ft. Lauderdale, FL)
10 day Caribbean - TSS FAIRWIND
- ☐ *Mar. 30-Apr. 10 (from Los Angeles, CA)
11 day Mexican Riviera - TSS FAIRSKY
- ☐ *July 8-20 (from San Francisco, CA)
12 day Alaska/Canada - TSS FAIRSKY

24 CME CREDITS

- ☐ *July 24-Aug. 3 (from Ft. Lauderdale, FL)
10 day Caribbean - TSS FAIRWIND
- ☐ August 9-23 (from Genoa, Italy)
14 day Mediterranean - MS COLUMBUS

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Highlights of the TMA Board of Trustees Meeting

July 15, 1984

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular third quarter meeting in Gatlinburg, Tenn., on July 15, 1984.

THE BOARD:

Committee on Rural Health

Received a report on the fall TMA Rural Health Conference. Topics chosen for discussion include Cost of Medical Care, Drug Abuse (including misuse of over-the-counter medications) and Healthy Life Styles. The Conference is to be held in Nashville, Oct. 3.

Ad Hoc Committee to Study the Office of Vice President

Heard a report that the following members had been appointed to the Ad Hoc Committee to Study the Office of Vice President: Drs. Charles W. White, Chairman, James Hays, Lloyd Brown, James T. Galyon, and George A. Zirkle, Jr.

SVMIC

Received a report that A. M. Best Company, a firm which annually rates all insurance companies, recently gave SVMIC an "A" rating and indicated SVMIC was one of the five best-run companies of the approximately 36 physician-owned companies in the country. Loss Prevention Seminars have been very active and future efforts will be directed toward specialty societies. Claims are continuing to increase at a 14% rate.

Mid-South Foundation for Medical Care

Heard a report that Mid-South Foundation for Medical Care had been appointed by HHS as the PRO for Tennessee. Since Tennessee is the second highest state in the nation, percentagewise, of hospital admissions of Medicare patients per 100,000 population, it will be necessary to require pre-admission certification of elective surgery patients.

IMPACT

Received a report that there will only be one level of IMPACT membership next year with dues \$100.

Request from TMA Auxiliary

Agreed to contribute \$1,500 to defer printing costs of the Holiday Sharing Card Program for the annual fund-raising efforts of the AMA-ERF. Mrs. Wanda Gutch, president of the TMA Auxiliary, reported Tennessee submitted the second largest contribution in the nation to the AMA-ERF in 1983.

Finance Committee Recommendation

Approved a 401(k) Salary Reduction Plan, which allows TMA to make a contribution for all employees with one year of service who are 25 years of age. Employees are allowed to make additional contributions. The plan will be administered by Bankers Life of Des Moines.

Physician Reimbursement Committee

Agreed to name a Committee of the Board to consider physician reimbursement issues, and return with a recommendation regarding the need for changing the TMA Bylaws to establish such a standing committee.

Health Promotions for Older Tennesseans

Recommended Dr. Joseph L. Willoughby, Franklin, be appointed to serve on a State Department of Health and Environment coalition for expanding health promotion issues for older Tennesseans.

Middle Tennessee Health Systems Agency Board Nomination

Nominated Dr. Thurman L. Pedigo, McMinnville, to serve on the Board of Directors of the Middle Tennessee Health Systems Agency.

Washington-Unicoi Medical Society Resolution

Voted to support a resolution from Washington-Unicoi Counties calling for a study on catastrophic/comprehensive insurance in Tennessee.

AMA Report

Heard TMA President Dr. Thomas K. Ballard briefly summarize the AMA Annual Meeting in Chicago, June 17-21, noting there were 355 delegates seated and the House considered 182 resolutions and 73 reports.

Committee to Study House of Delegates Composition

Heard Chairman Dr. Luthur Beazley, Jr. report the following members had been appointed to the Ad Hoc Committee to consider formation of a Staff Section for the TMA House of Delegates: Drs. Charles E. Allen, Chairman, James C. Bradshaw, Jr., John H. Burkhart, Hamel B. Eason, Allen S. Edmonson, and Malcolm R. Lewis.

Management of Post-Herpetic Neuralgia

WINSTON C. V. PARRIS, M.D.

Post-herpetic neuralgia is a clinical syndrome occurring in patients who have overcome the acute phase of herpes zoster or shingles, which consists of pain in the dermatomal area affected by the herpes virus. The pain which may develop from one to three weeks after the acute infection and persist up to ten years, may be acute and severe and is usually associated with patchy areas of paresthesia, pruritis, scarification, hyperesthesia, loss of hair growth, and hyperhydrosis. Its severity may give rise to suicidal ideations, and occasional reports of suicides are found in pain clinics across the country.

The control of pain due to herpes zoster presents a major challenge to physicians focusing on the management of chronic pain. Anesthesiologists have been in the forefront of managing acute herpes zoster and have recently had significant success, usually by using sympathetic blocks. In acute herpes zoster of the head, neck, upper chest and upper extremities, stellate ganglion blocks are successful not only in arresting the vesicular eruption but in averting post-herpetic neuralgia. Lumbar sympathetic blocks are used for acute herpes zoster of the trunk and lower extremities. Because of the acknowledged expertise of anesthesiologists in managing an assortment of pain syndromes, it was logical that patients with post-

herpetic neuralgia would be referred to pain clinics in general and to anesthesiologists in particular.

Unlike the management of acute herpes zoster, the management of post-herpetic neuralgia is not always very rewarding. Still, there is an assortment of therapeutic strategies that may be utilized, including lumbar sympathetic blocks, stellate ganglion blocks, infiltration of the affected area with bupivacaine 0.25% and triamcinolone 0.2% mixtures, and pharmacologic intervention with antidepressants, phenothiazides, and other centrally acting drugs. Transcutaneous electrical nerve stimulation, neuro-electric therapy, acupuncture, acupressure, hypnosis, and peripheral nerve blocks have also been used. While the overall results are not very impressive, there have been instances of significant pain control.

We describe here the successful management of a patient with post-herpetic neuralgia who after he had been away from work for approximately two years was enabled to return to work by our attempts at controlling his pain. We utilized a series of stellate ganglion blocks, drug detoxification, and relaxation exercises as the essential components of our therapeutic regimen.

Case Report

A 47-year-old white man was referred as an outpatient to the anesthesiology department at Vanderbilt University Hospital for evaluation and treatment of his left facial pain involving the periauricular and posterior nuchal area. Past history revealed that he had acquired herpes zoster approximately two years earlier, and that he had been afflicted with severe,

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incapacitating post-herpetic neuralgia of the left face for approximately 22 months. The pain was constant, and was associated with significant mood changes with some mild depression. The pain was also associated with sleep disturbances and weight loss. The weight loss was attributed to dental problems due to involvement of the buccal mucosa by herpes zoster.

The patient had been treated for approximately three years by the hematology-oncology service for acute myelomonocytic leukemia, which was then in remission following chemotherapy. He developed several opportunistic infections, including an *Aspergillus* sinus infection, which was treated with amphotericin-B, *Pneumocystis carinii* pneumonia (diagnosed by open lung biopsy), and more recently, herpes zoster of the left ear, face, jaw, lip and mouth. Three years earlier he underwent coronary artery bypass surgery and has been quite stable from a cardiovascular standpoint except for moderate hypertension, which was managed with propranolol.

His post-herpetic neuralgia was managed by his primary physician with morphine sulfate elixir, 10 mg every two to three hours, and in fact, on some very painful days the patient ingested as much as 120 mg of morphine orally. It was his increasing usage of narcotics, inadequate pain control, associated drug dependence, and mood aberrations that led his doctors to refer him to our clinic. Another important consideration was that he was the essential breadwinner in his family and had not worked for approximately two years. He admitted to using transcutaneous nerve stimulation for approximately two months without significant pain relief. Because of all the pain-related problems he was adjudged by his doctors as being totally disabled, and was paid social security disability wherein his current emoluments were approximately one-third his salary prior to his illness. Prior to his illness he was maintenance supervisor of a large manufacturing plant and thoroughly enjoyed his work, as well as his family life.

Physical examination was unremarkable except for the area of scarring over most of the left face along the distribution of the maxillary and mandibular nerves. His forehead and eyes and perioral areas were not involved, but his left pinna and external ear were grossly scarred and he admitted to intermittent loss of hearing in the left ear. Aside from patchy sensory loss over the scarred area of the face, there were no significant neurological deficits. Laboratory investigations, electrocardiogram and chest x-ray were all within normal limits.

We decided to manage this man as an outpatient with a series of left stellate ganglion blocks. Each block was done using 10 ml of 0.25% bupivacaine through the anterior paratracheal approach. Significant pain relief followed the block, but with increasing periods of analgesia and consequently increasing periods during which the need to take morphine sulfate did not arise, it became obvious that the patient had significant drug dependency. We therefore admitted him to the hospital for further pain control, drug detoxification, psychotherapy, and behavior modification.

Psychiatric evaluation revealed no evidence of major depression, and confirmed that his pain was not psychogenic, though it was thought that psychological factors did as always modify his pain. As he was highly motivated to overcome his drug dependence, he was admitted to the cooperative care facility at the hospital where drug detoxification was commenced using the technique practiced by Brena at Emory University Pain Control Center in Atlanta. He was given all the narcotics that he required for 24 hours, during which time doses, times, and frequency were recorded by the nursing staff. The total dose of all narcotics administered was converted to an equivalent methadone dose, which was then given in divided doses (15 mg) every four hours for the next 24. The methadone dose was then decreased by 20% each day until on the

sixth day he was off all narcotics. During this time he received left stellate ganglion blocks on alternate days and at the end of his sixth day he had no significant pain of the face and affected areas. He also received intensive psychotherapy, physical therapy, and relaxation exercises, and was allowed to interact with his family and other pain patients in the hospital. The net result of this interdisciplinary approach was that on the ninth day following admission the patient was discharged with total pain relief and a suggestion that he gradually return to work.

Discussion

The pain associated with acute herpes zoster is not always very severe, and when it is it can be managed by various analgesic agents; it is also usually of very limited duration. The pain of post-herpetic neuralgia, however, is very severe and it is continuous. This continuous pain is associated with paroxysmal crescendos of pain arising without reflex excitation. In most patients the pain is limited to the zone of the herpetic eruption or the post-herpetic scar, whereas in others it may be poorly localized and diffuse, and not confined to the area affected by the virus.

Effective management of the acute herpes zoster may not only interrupt the disease process, but it may prevent that painful process of post-herpetic neuralgia. It is for this reason that we emphasize here the prophylactic treatment of post-herpetic neuralgia, which is usually done by sympathetic blocks and has been reported in most series as varying from 90% to 100% successful. For acute herpes zoster of the head, neck, upper extremities, and upper chest a series of stellate ganglion blocks is usually effective.¹ For lesions below T7, including the lower extremities, a lumbar sympathetic or an epidural block is effective.

In patients with acute herpes zoster who do not seek medical attention and in those in whom sympathetic blocks are unsuccessful, post-herpetic neuralgia is a very difficult problem. The longer the period from the acute process, the more difficult and the less satisfactory are the therapeutic results. As with acute herpes zoster, the first approach is to perform a series of sympathetic blocks, which can be done at varying intervals depending on the intensity of the pain. Where pain is moderate the blocks can be done once weekly, whereas in severe cases they can be done every other day or two as the situation demands. A variety of local anesthetics can be used for these blocks. We usually use 20 ml of 0.25% bupivacaine for lumbar sympathetic blocks and 10 ml of 0.25% bupivacaine for stellate ganglion blocks, taking all the usual precautions for performing such blocks, which include the availabil-

ity of resuscitation and monitoring equipment.

During the initial pain evaluation it is important to determine whether these patients have any suicidal tendencies, and if they do, to seek an immediate psychiatric evaluation. Though we have had one of our patients attempt suicide while undergoing treatment, in the majority of cases, suicidal ideations are not manifested, and basic background psychotherapy and instruction in coping techniques are adequate. A psychological evaluation should be initially carried out, however, to facilitate the process of behavior modification.² If the intensity of the pain is not lessened and the duration of analgesia following the blocks does not increase, the blocks ought to be terminated after about three or four times, though the decision is arbitrary and its application should be flexible.

In patients who do not respond favorably to the sympathetic blocks, subcutaneous infiltration of 20 to 40 ml of a mixture of 0.25% bupivacaine with 0.2% triamcinolone in the perimeter of the painful area should be tried. This area in the majority of cases is usually well demarcated by scar.

In patients who have been taking narcotic analgesics for long periods, a serious attempt should be made to educate them as to the complications of prolonged narcotic use and the socio-cultural implications. The family should be involved in this discussion and their cooperation actively solicited. If there is evidence of significant drug dependence, an attempt should be made to detoxify the patient on an inpatient basis.

The protocol applied in the detoxification is variable. Ours is to admit the patient to the hospital and to administer all the narcotic, sedative and/or hypnotic agents required by the patient for a 24-hour period, keeping a careful tally of the times, doses and frequencies of administration. Although supervision should be such that if the patient tries to obtain any drugs from an outside source it would be recognized by the nursing staff, the goal is not to police the patient but to solicit his cooperation, which is usually obtained if the patient understands the problem. Consequently, we place major emphasis on patient education of the problem of narcotic dependence.³ All narcotics are related to a unit of methadone 10 mg orally and all sedatives and hypnotics are related to phenobarbital 30 mg orally. After 24 hours of receiving all medication required, the dosage is converted to methadone in the case of narcotics and to phenobarbital in the case of sedatives and hypnotics, and the patient is then given the

equivalent doses. The methadone dose is then decreased by 20% daily and the phenobarbital dose by 10% daily. While detoxification is in progress, the patient is counseled, attends physical therapy, group education, and individual education classes, receives his nerve blocks as required, and is given physical, emotional, and psychological support by both his therapist and his family. In our experience, this usually results in good rehabilitation and excellent long-term pain control. It usually takes about five to seven days to implement adequately.

Nordenbos⁴ has demonstrated that there are significant histologic changes in the peripheral nerves of patients with post-herpetic neuralgia. These are more pronounced in the smaller fibers of the mixed nerve than in the larger fibers. The significance of these changes is that the smaller myelinated fibers (A-delta and B-fibers) and nonmyelinated C-fibers which normally transmit pain stimulus are severely damaged. The larger myelinated nerve fibers, which conduct other modalities of sensation, inhibit the sensory input of the smaller fibers. It seems very likely therefore that in neuralgias complicating herpes zoster the abnormal pain experienced can be partly attributed to the loss of the inhibitory influence exerted by the larger nerve fibers. Another argument in favor of this view is that there is a progressive increase in the incidence and severity of post-herpetic neuralgia in older patients, probably related to a progressive loss of neural tissue with increasing age which is greater in the larger non-pain conducting fibers than in the smaller pain conducting C-fibers.

Another possible factor of significance in the pathogenesis of post-herpetic neuralgia is that the lesion occurring in the posterior horn of the spinal cord may affect the gate control system (as proposed by Melzack and Wall⁵) by destroying the inhibitory influence that is exerted on the inflow of painful impulses by the substantia gelatinosa in the spinal cord. Unfortunately, the gate control theory of Melzack and Wall does not adequately explain the beneficial effects of sympathetic blocks in the management of post-herpetic neuralgia. A more plausible explanation is the one advanced by Livingstone,⁶ which assumes that an organic lesion in the peripheral nervous system and occasionally in the central nervous system becomes a source of chronic irritation. Impulses from this source create abnormal activity in the internuncial neurone center of the spinal cord gray matter, otherwise known as the T-cells causing an

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abnormal motor response from the lateral and anterior horn cells of one or more segments of the spinal cord. As a result, a variety of effects, including muscle spasms and vasomotor changes, occur in the peripheral tissues, furnishing new sources of painful reflexes. Consequently, a vicious cycle of noxious activity is created. The sympathetic over-activity that results plays a major part in the production of this abnormal pain reaction and it produces ischemia and local asphyxia in the tissues.⁷ Asphyxia can stimulate the small pain conducting C-fibers while blocking conduction in the large and medium myelinated fibers which transmit other sensations. This situation produces an increase in the number of painful sensations reaching the cord from the periphery while at the same time reducing other sensation, allowing pain perception to occupy a disproportionate part of the patient's consciousness⁸ in the short run, while in the long run the ischemic changes in the nervous tissue inhibit the regeneration of larger myelinated nerve fibers.

The effect of catecholamines, prostaglandins and other active principles on the microcirculation as related to peripheral end organs and peripheral nerves require scrutiny vis-a-vis sympathetic blocks for pain management in post-herpetic neuralgia. As a result of the ischemic changes due to the vascular spasm there is an increase of catecholamines and related substances.

Since the peripheral end-organs are extremely sensitive to catecholamines, these substances play an important part in producing and perpetuating the abnormal pain. It is against this background that the explanation for the effectiveness of sympathetic blocks in managing the pain of post-herpetic neuralgia is sought.

Summary

In summary, we have presented a case of post-herpetic neuralgia successfully managed by a series of stellate ganglion blocks, drug detoxification, intensive psychotherapy and behavior modification. This patient, who was otherwise disabled for two years, was enabled to return to gainful employment and a meaningful family life. □

Acknowledgement

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Abdominal Pregnancy:

A Report of Two Cases and Review of the Pathogenesis, Diagnosis and Treatment

HAYWOOD L. BROWN, M.D.; EUGENE B. LINTON, M.D.; and
LEONARD A. BRABSON, M.D.

Introduction

Abdominal pregnancy can be a life-threatening variation of extrauterine gestation. The condition is divided into two groups, primary and secondary. Primary abdominal pregnancy occurs when the impregnated ovum implants directly on the peritoneal surface of the abdominal cavity. Secondary abdominal pregnancy is the result of a tubal abortion or tubal rupture with extrusion of the conceptus from the tube with subsequent reimplantation to the abdominal peritoneal surface.^{1,2} Factors that alter tubal anatomy or function predispose to abdominal pregnancy in the same manner as for tubal pregnancy. These include tubal infection, congenital anomalies, endometriosis, or previous tubal surgery.³

The incidence of abdominal pregnancy is usually recorded at one in 15,000 deliveries,⁴ but has been reported to be as low as one in 782 deliveries.⁵

Early and accurate diagnosis of this condition is important if one is to avoid increased maternal morbidity and mortality.

Case Reports

Case 1. A 23-year-old white gravida 2, para 1, presented herself to the emergency room at 14 to 15 weeks' gestation with a two- to three-week history of crampy abdominal pain which was sharp, intermittent, and unrelated to gastrointestinal or urinary function. She had been seen on several occasions during her pregnancy and had been treated symptomatically. She had had dyspareunia for the past several weeks but denied vaginal bleeding or abnormal discharge. Pelvic ex-

amination revealed a palpable fundus at 15 cm. Fetal heart tones by Doppler were at approximately 150/min. There was diffuse tenderness over the lower abdomen and the cervix was anterior. There was a tender, bulging cul-de-sac mass which was immobile and contiguous with an anterior 14-week size gestation.

A real time ultrasound obtained soon after admission revealed a single fetus of 15 weeks' gestation with normal fetal motion and cardiac activity. The placenta was not defined, and no separate pelvic mass was reported. B-scan ultrasound obtained later was reported as showing a single intrauterine gestation of approximately 14 weeks. Again, no separate pelvic mass was identified.

The patient continued to complain of abdominal pain with nausea and vomiting. She was taken to surgery with a differential diagnosis of incarcerated uterus or twisted adnexa for examination under anesthesia and possible laparotomy. Pelvic findings were interpreted as an impacted uterus, and an attempt was made to lift it from the cul-de-sac. Anterior displacement of the uterus was accomplished, and the patient was taken to the recovery room where she immediately became markedly hypotensive. Because intra-abdominal hemorrhage was suspected, she was taken for immediate laparotomy, where approximately 1,500 cc of blood was encountered, and the fetus was found floating free in the abdominal cavity. The placenta was also free in the abdominal cavity except for a small remaining attachment to the right tube and ovary. Since the placental attachment was entirely on the surface of the adnexa, bleeding was controlled easily by right salpingo-oophorectomy. Total blood loss was estimated at 2,500 cc. The patient received five units of whole blood with a subsequent uncomplicated postoperative course.

Case 2. A 25-year-old white gravida 2, para 0, abortus 1 (ectopic) with a history of chronic hypertension controlled by diuretic therapy had been followed by her obstetrician since seven weeks' gestation. Her early prenatal course was complicated by irregular vaginal bleeding. B-scan ultrasound in this early period was interpreted as a seven-week intrauterine pregnancy.

The patient had numerous complaints throughout her prenatal course, most of them related to the gastrointestinal tract. Vague crampy abdominal pain was almost a constant complaint and was associated with intermittent bouts of nausea and vomiting and constipation. Urinary frequency and urgency were also a problem, but urine cultures showed no growth.

At 34 weeks' gestation the patient's blood pressure rose to more than 140/90 mm Hg which did not respond to bed rest. By 35.5 weeks, it was 160/110 with proteinuria. She was admitted to the hospital, where induction of labor was planned. She had an undilated anteriorly displaced cervix and vertex palpable at zero station. Induction of labor was started

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the day after admission, but no contractions were noted even at maximum oxytocin infusion. Oxytocin induction was attempted on two more occasions but did not produce a normal contraction pattern. After the third unsuccessful attempt at induction, Cesarean section was decided upon for delivery.

On opening the abdomen, the fetus was found floating free in the abdominal cavity. The fetus delivered was a 5 lb 2 oz female with no gross anomalies. The cord was clamped and ligated close to the placenta, and the placenta was left in situ. Implantation appeared to be in the right adnexal area with extension to the right pelvic sidewall and involving bowel and omentum.

The postoperative course was complicated by some mild respiratory congestion which responded to respiratory therapy. She continued to have mild blood pressure elevation, and oral antihypertensive medication was restarted. Mother and baby were discharged in good condition on the 11th hospital day.

Discussion

The diagnosis of extrauterine abdominal pregnancy can be difficult. In 1961, Hreshchyshyn et al⁶ reviewed 101 cases of abdominal pregnancy and found that in 58, the diagnosis was not considered preoperatively. A high index of suspicion is necessary in making the diagnosis prior to surgery. In both of our cases the clinical course dictated operative intervention prior to diagnosis.

Abdominal pregnancy often presents a variety of vague nonspecific symptoms, the most common including abdominal pain and vaginal bleeding. The abdominal pain often mimics minor gastrointestinal disease and the patient is often treated symptomatically. Nausea, vomiting, and urinary frequency may also be present, as well as more severe symptoms arising from intestinal obstruction.

Stubbs and Smedley⁷ enumerated the physical findings that point to the diagnosis of abdominal pregnancy, which include abnormal fetal lie and the absence of Braxton-Hicks contractions during the third trimester. Pelvic examination often demonstrates an anterior displacement of the cervix.

Failure to produce uterine contractions with maximum dosages of intravenous oxytocin should make one suspicious of an abdominal pregnancy. Chessing and Zussman⁸ in 1954 and Zuspan et al⁵ in 1957 described the use of intravenous oxytocin along with tocodynamometer to detect uterine contractions, using this test to prove extrauterine gestation.

King,⁹ in 1954, was the first to advocate the radiographic examination of the abdomen; demonstration of fetal parts positioned adjacent to or superimposed upon the maternal spine on lateral

projection has been the most useful single sign.

Allibone et al¹⁰ and Hertz et al¹¹ have described the use of ultrasound in making the diagnosis of abdominal pregnancy. By scanning with either gray scale, real time, or a combination of the two, useful adjunctive information may be obtained. If the fetus can be demonstrated to be outside the uterus, or an abdominal or pelvic mass identifiable as the uterus can be seen separate from the fetus, then diagnosis is almost assured. Though Duff¹² has previously described the limitation of ultrasound in the diagnosis of early abdominal pregnancy, our failure to recognize abdominal pregnancy on ultrasound should not take away from its usefulness as a diagnostic tool. Difficulty in the definitive interpretation of the ultrasound in the first and second trimesters is illustrated by both cases.

After the diagnosis is made, management is of major concern. Since many complications can occur with advanced abdominal pregnancy, early termination by laparotomy should be carried out as soon as the diagnosis is made. Fetal mortality in abdominal pregnancy is reported to range from 50%¹³ to 95%.¹⁴ Tan et al¹⁵ reported the incidence of fetal abnormalities in large series ranging from 20% to 40%, most related to the pressure of adjacent structures upon the fetus as a result of oligohydramnios and the absence of the protective uterine wall.

Management of the placenta and its implantation site can be a major problem. Factors that determine the mode of management include the placental location, its blood supply, the state of placental viability, and complications at surgery.^{1,6} Shearing the placenta from its attachment, or ill-advised attempts at removal, can lead to uncontrollable hemorrhage. Petrie and Duchir¹⁶ advise leaving the placenta in situ unless it can be easily removed, as in our first case. The majority of placentas left in situ are absorbed without bleeding or infection, although it may remain functional up to 50 days postoperatively.¹⁷ A placenta left in situ also carries with it postoperative morbidity which has led some investigators to recommend the use of methotrexate to increase the rate of destruction and absorption of the trophoblastic tissue.¹⁸⁻²⁰

Rahman et al²¹ believe that rapid destruction of the abdominal placenta induced by methotrexate causes accumulation of an undue amount of necrotic tissue, providing an ideal media for colonic bacteria. They therefore advise against the use of methotrexate, preferring a slower destruc-

tion of the placenta.

Making the correct preoperative diagnosis is the major task of the clinician, and the earlier the diagnosis is made and the condition treated definitively, the better the outcome for the patient.

In summary, abdominal pregnancy advanced to the second trimester and beyond is a life-threatening, but relatively rare, condition. A high index of suspicion is necessary to make the diagnosis. Prompt surgical intervention and proper intra-operative management will serve to decrease the morbidity and mortality of the mother. With the emphasis on aggressive management in the interests of the mother, the incidence of fetal anomalies and fetal wastage will remain high.

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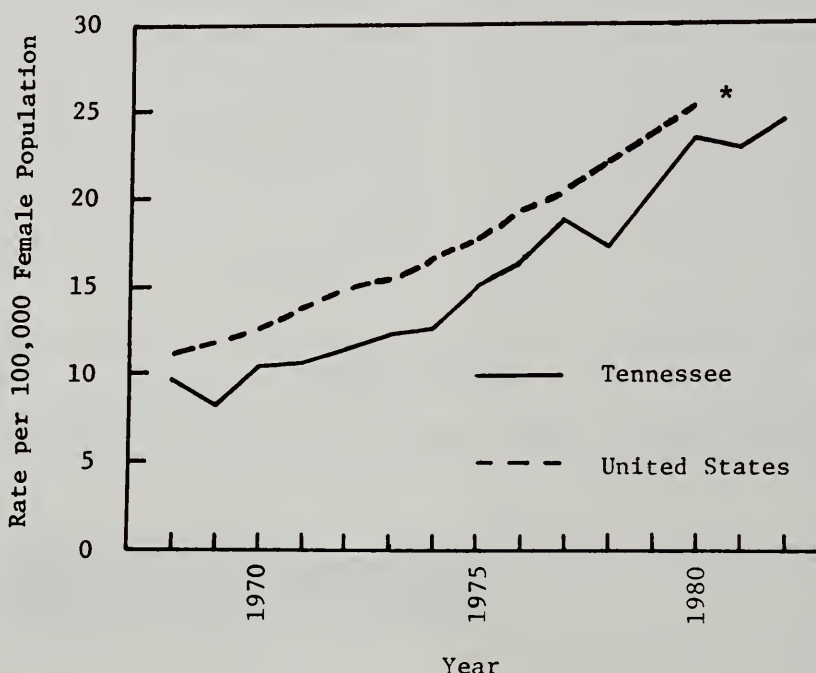
Trends in Lung Cancer in Tennessee Women

JEFFREY S. HARRIS, M.D., M.P.H.

Starzyk¹ has noted that lung cancer has, or will shortly, become the leading site-specific cause of cancer deaths among women in the states of Washington, California, Florida, Louisiana, Mississippi, Oregon, and Texas. Lung cancer is now the leading cause of cancer deaths among women in Kentucky, another tobacco state.² There the age-adjusted rate doubled from 1971 to 1981, and will double again by 2000. Analysis of cancer deaths among women according to primary site in Tennessee from 1968 through 1982 revealed that the lung cancer death rate has increased

152.6% during that period, from 9.7 per 100,000 in 1968 to 24.5 in 1982.

By contrast, rates for digestive cancer have remained relatively stable, ranging from 35.4 in 1973 to 40.8 in 1979. The 1982 rate was only 1.5% greater than the 1968 rate. (It should be noted that this figure includes *all* digestive tract cancer, whereas lung cancer rates are site-specific.) Breast cancer mortality rose from 21.9 in 1968 to 27.7 in 1982, a 26.5% increase. Breast cancer death rates have fluctuated around a mean of 25.3, as opposed to the nearly linear rise in the lung can-



*Final United States data not available after 1980

Figure 1. Crude death rates per 100,000 female population of respiratory cancer mortality in females, resident data, Tennessee and the United States, 1968-1982.

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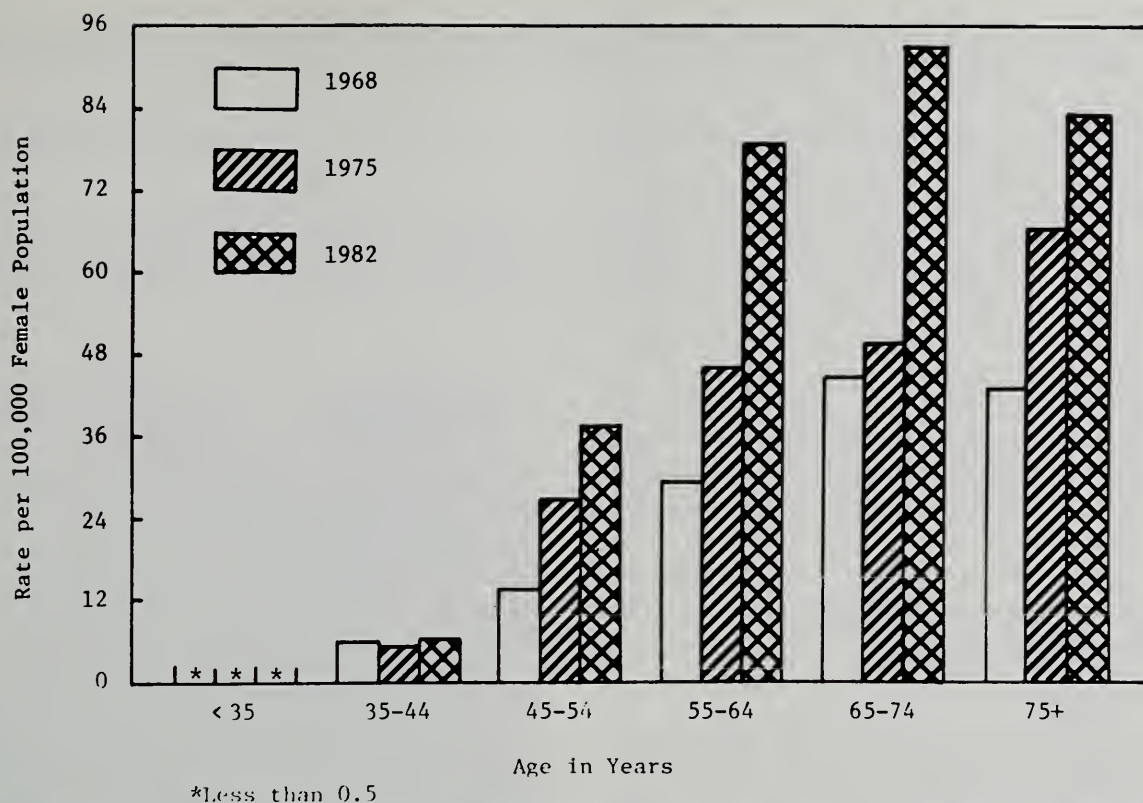


Figure 2. Crude death rates per 100,000 female population of respiratory cancer mortality in females, according to age at death, resident data, Tennessee, 1968, 1975, and 1982.

cer death rate for women. Female genital cancer rates in Tennessee have declined 29.2%, from 26.4 in 1968 to 18.7 in 1982.

Although the rising trend for female lung cancer deaths in Tennessee parallels the U.S. trend,³ U.S. rates increased 127.0% from 1968 to 1980 (the last year for which final statistics are available), whereas Tennessee rates rose 140.2% during that period (Fig. 1). If that trend were to continue, respiratory cancer mortality rates for women would surpass U.S. rates in the near future. It is interesting that U.S. and Tennessee breast cancer death rates rose similarly for the same time period, showing 8.5% and 8.7% increases, respectively.

Fig. 2 presents respiratory cancer mortality figures for the years 1968, 1975, and 1982. Higher death rates for every age group are seen in 1982. Death rates in 1982 for women aged 45 to 54 years and 55 to 64 years were 182.0% and 168.8% higher, respectively, than comparable 1968 rates.

Death rates for respiratory cancer in men in Tennessee rose from 53.5 in 1968 to 90.2 in 1982,

a 68.6% increase. It appears that thanks to cigarette smoking,⁴ Tennessee women are well on their way to achieving equality, at least in that respect. The continued doubling of the death rate seen in Kentucky appears to hold in Tennessee as well. The question, as Stolley⁵ has stated, is whether the health profession and public can focus attention, time, and effort on reduction of smoking to control this new epidemic.

Acknowledgment

The author acknowledges the assistance of the staff, State Center for Health Statistics, Tennessee Department of Health and Environment, Nashville.

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Nitrofurantoin-Induced Liver Disease

A Case Report

HOWARD A. FUCHS, M.D. and GEORGE R. AVANT, M.D.

Introduction

Nitrofurantoin, a furan derivative, is commonly used as a urinary antiseptic. Several adverse side-effects have been described, the most common being allergic reactions, pulmonary fibrosis, and polyneuropathy. Chronic active hepatitis is a less common, serious adverse reaction as illustrated in this case report.

Case Report

A 64-year-old woman was initially evaluated for fever, malaise, elevated aminotransferase, and a positive indirect immunofluorescent antinuclear antibody (ANA). Her past medical history was significant for chronic arthralgias, mild hypertension, and recurrent urinary tract infections.

Three months prior to admission systemic lupus erythematosus was suspected on the basis of arthralgias and a positive ANA. Although examination revealed no evidence of inflammatory arthritis, the ANA was positive at a titer of 1:1280. One month prior to admission, when she noted facial edema, malaise, and evening fevers to 103°F, her alkaline phosphatase (AP) was 230 IU/liter (normal 40-110), aspartate aminotransferase (AST) 245 IU/liter (normal 0-40), albumin 2.8 gm/dl (normal 3.0-5.0), IgG 750 mg/dl (normal 770-1,130), and total serum protein 7.5 gm/dl (normal 6-8). Medications included propranolol (Inderal), indomethacin (Indocin), and triamterene (Dyazide). In addition, she had been taking nitrofurantoin (Macrochantin) for eight months. All medications except propranolol were discontinued and she was given a five-day course of prednisone, but without improvement.

When she was admitted to Vanderbilt University Medical Center two weeks later, she was febrile, with peripheral edema and ascites. Her AP was 157 IU/liter, AST 165 IU/liter, albumin 2.2 gm/dl, and total protein 6.3 gm/dl. Bilirubin and clotting functions were normal, and no hepatitis B surface antigen, antimitochondrial antibody and anti-smooth muscle antibody were present. A CAT scan of the abdomen showed no masses or interhepatic ductal dilatation but a liver-spleen scan showed inhomogenous tracer activity suggesting hepatocellular disease. A liver biopsy revealed fatty change and fibrosis consistent with resolving chronic active hepatitis (Fig. 1). During her hospital stay her edema resolved with diuretics and salt restriction and the fever subsided without therapy.

She received prednisone at discharge, 80 mg initially, with the dose tapered over a four-month period. At discharge her laboratory abnormalities had almost resolved: AP 88 IU/liter, AST 30 IU/liter, albumin 4.4 IU/liter and ANA positive at 1:80. Two months later her fever and malaise had not returned and her performance level was back to her baseline.

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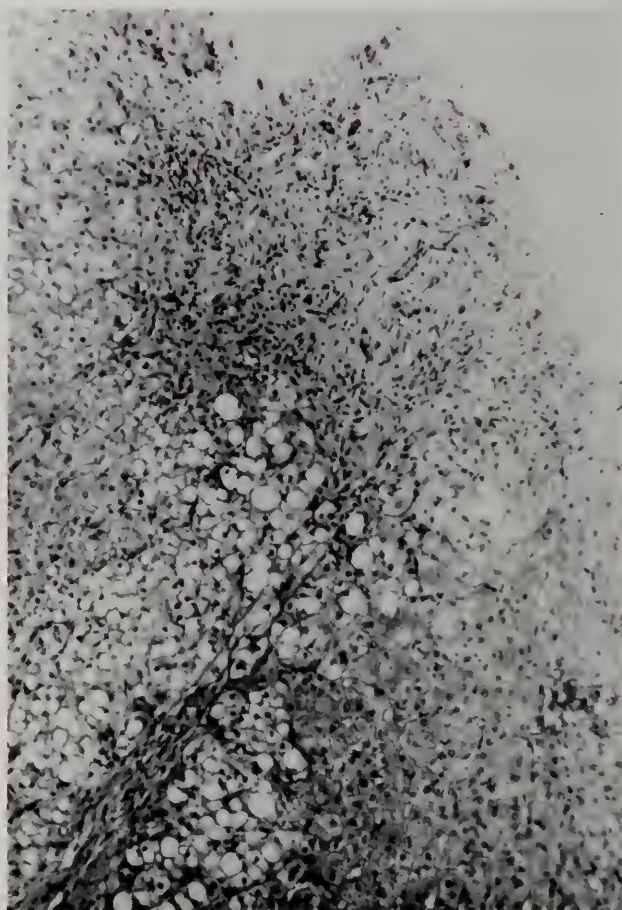


Figure 1. Liver biopsy shows fatty change and bridging fibrosis consistent with resolving chronic active hepatitis (hematoxylin-eosin, $\times 80$).

Discussion

A large study of adverse reactions to nitrofurantoin¹ reveals acute pulmonary and allergic reactions to be the most prevalent, with liver damage noted in only 6% of cases reported. This case illustrates the features commonly seen with nitrofurantoin-induced chronic active hepatitis: fever, malaise and hepatic dysfunction manifested by abnormal AP, AST, and serum albumin. Sharp and associates,² reviewing their evidence for hepatic dysfunction in 20 patients with nitrofurantoin-induced chronic active hepa-

titis, found that 87% had hypoalbuminemia and 82% hypergammaglobulinemia in addition to elevated AST. Black and associates³ likewise reported elevated gammaglobulins and aminotransferases.

The onset of symptoms and hepatic dysfunction is variable, usually occurring after more than six months of therapy,^{2,4} with doses of nitrofurantoin ranging from 50 mg to 200 mg daily. Biochemical liver test abnormalities became normal by 12 weeks after discontinuation of the drug in more than half the patients; occasionally resolution required up to a year.⁴

Treatment has as its mainstay discontinuation of nitrofurantoin. In cases where the drug was continued, patients have developed hepatic necrosis and subsequently died.² Rechallenge with nitrofurantoin will be accompanied by hepatic dysfunction.^{2,5} Prednisone use has been uncontrolled, and although rational, has not been shown to be effective.

Immunologic abnormalities such as a positive ANA and hypergammaglobulinemia are common. Although this patient's elevated ANA titer decreased, these abnormalities may persist for years without evidence of continuing disease. Hypergammaglobulinemia and positive ANA are not specific for chronic active hepatitis, as they have also been seen with a lupus-like syndrome due to nitrofurantoin.⁶ They may be useful in conjunction with serum aminotransferase for following resolution of the disease. Anti-smooth muscle antibodies have also been seen in this disorder and tend to parallel the ANA in their course of decline after discontinuation of the drug.³

The mechanism of nitrofurantoin-induced liver

disease is unknown. The hepatotoxicity may be due to nitro-reduced metabolites. Spielberg assessed nitrofurantoin-induced cytotoxicity using lymphocytes, mouse microsomal enzymes, and an epoxide hydrolase inhibitor.⁷ Nitrofurantoin by itself did not damage the cells, but with the microsomal enzymes produced cytotoxicity in a dose-dependent manner. The addition of an epoxide inhibitor did not enhance toxicity. Dose-dependent depletion of glutathione and enhanced cytotoxicity in lymphocytes from a patient with glutathione synthetase deficiency was also noted. Thus, a toxic metabolite is produced that does not appear to be a furan epoxide and is probably detoxified in part by glutathione.

Summary

Nitrofurantoin-induced chronic active hepatitis is an uncommon reaction, and is usually reversible within three months of discontinuation of the drug. Rechallenge or continuation of the drug is dangerous and will lead to further hepatic damage and possibly death. Immunologic abnormalities, including elevated ANA and anti-smooth muscle antibodies, may persist despite return of normal hepatic function.

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Bacteremic Non-Typeable *Hemophilus Influenzae* Pneumonia

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Non-typeable strains of *Hemophilus influenzae* have been recently recognized as important pathogens in lower respiratory tract infection.¹⁻³ These organisms cause pneumonia in elderly patients with chronic obstructive lung disease, but rarely cause bacteremia. Although other series of *H. influenzae* bacteremia have included sporadic cases of non-typeable isolates, we are unaware of any reviews of bacteremic non-typeable *H. influenzae* pneumonia, and therefore describe the clinical, radiologic, and pathologic characteristics of six patients with this disease.

Methods

The records of six patients with positive blood cultures for non-typeable *H. influenzae* who had clinical evidence of pneumonia and non-typeable *H. influenzae* isolated from sputum were reviewed. In one patient sputum was not obtained, but autopsy evidence for pneumonia confirmed the diagnosis. *H. influenzae* was serotyped by slide agglutination technique using CDC anti-serum group A-E.

Six of the seven episodes of *H. influenzae* bacteremia occurring in this hospital over a four-year period were due to non-typeable organisms. The seventh was caused by a type D *H. influenzae*.

Results

The average age of our patients was 59. Four of the six cases were considered to be community-acquired, but two of these had been discharged from the hospital within five days of their bacteremic episode. All of our patients had multiple medical illnesses (Table 1), including chronic obstructive lung disease (5), azotemia (4), cancer (3), liver disease (3), congestive heart failure

(3), and alcohol abuse (3). All were debilitated at the onset of their bacteremia. The most frequent signs and symptoms included dyspnea (6), abnormal mental status (5), cough (4), shock (4), fever (100° F or more) (3), rales (3), decreased breath sounds over the area involved segment (2), and wheezing (1). One patient had no adventitious breathsounds.

Four patients had white blood cell counts greater than 14,500/cu mm. The other two patients had white blood cell counts of less than 2,900/cu mm and had been treated with chemotherapeutic agents. All six patients had positive blood cultures, and in five cases *H. influenzae* grew from the expectorated sputum; in two Gram-positive diplococci were observed in the Gram stain, and one patient had a positive blood culture for *Streptococcus pneumoniae* concomitantly with *H. influenzae*.

Two of the six patients received optimal antibiotic coverage for *H. influenzae* and recovered. The remaining four patients died within 36 hours of the onset of their bacteremia. Three of the four had been placed on antibiotics active, but not considered optimal, against *H. influenzae* (cephalothin, cefoxitin, ticarcillin). While two died as a consequence of their *H. influenzae* septicemia, in the other two cases it was thought to be contributory but not the direct cause of death.

Chest roentgenograms (CXR) were obtained in all patients within 24 hours of the diagnosis of *H. influenzae* bacteremia. It should be noted that all of these patients were critically ill and that the chest films were portable supine AP projections. Two CXRs revealed new infiltrates—one a patchy density in the lingular segment of the left upper lobe and one a left lower lobe inhomogenous acinar filling process in the left lower lobe. The four remaining patients' CXRs did not reveal infiltrates. Three of these patients possessed severe underlying thoracic pathology that may have obscured a pneumonic process (right upper lobe

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atelectasis and volume loss with a right pleural effusion in one, bilateral large pleural effusions in one and a massive right pleural effusion and cardiomegaly in the third). One CXR demonstrated only linear atelectasis in the left lower lung field without any other abnormalities; autopsy did not reveal any evidence of pneumonia, but the sputum culture was positive for *H. influenzae*. In summary, the CXR was of possible value in only two out of six patients in helping to determine the source of the bacteremia.

Postmortem Findings

Three patients who died were autopsied. Two of these had postmortem evidence of pneumonia. Patient D, with squamous cell carcinoma of the lung, was found to have extensive bilateral acute bronchopneumonia with focal necrosis. The pneumonic areas were found in association with tumor infiltration, as well as in otherwise normal lung tissue. Rarely, a hemorrhagic exudate was present. Postmortem cultures in this case grew

equal quantities of *S. pneumoniae* and *H. influenzae*. Patient C, with oat cell carcinoma of the lung, had multiple foci of organizing bronchopneumonia, with areas of continuing acute inflammation. A microscopic focus of residual tumor was found in the right upper lobe, remote from pneumonic lung tissue. Patient E, with acute pancreatitis and cholecystitis, had no evidence of pneumonia at autopsy. Extensive congestion, edema, and hyaline membrane formation were found, suggesting the presence of adult respiratory distress syndrome.

The findings of acute bronchopneumonia with subsequent organization are established histopathologic patterns for typeable *H. influenzae* pneumonia, as well as for non-typeable non-bacteremic cases.²

Discussion

The role of *H. influenzae* as a cause of pulmonary disease has become better defined over the past 30 years. Initially, *H. influenzae* was

TABLE 1
CLINICAL CHARACTERISTICS OF SIX PATIENTS WITH *H. INFLUENZAE* BACTEREMIA

Patient	Underlying Respiratory Disease	Other Underlying Illnesses	CXR Findings	Bacteriology	Treatment	Outcome
A. 61/M/W	COPD	Azotemia, cirrhosis, alcoholism	Cardiomegaly, massive right pleural effusion	Gram stain: Gram neg. cocco bacilli Blood: <i>H. influenzae</i> Sputum: <i>H. influenzae</i>	Cephalothin	Died
B. 61/M/W	COPD	Cirrhosis, azotemia, bowel infarction	Left lower lobe infiltrate	Blood: <i>H. influenzae</i> Sputum: <i>H. influenzae</i>	Chloramphenicol, ampicillin, gentamicin	Recovered
C. 58/M/W	COPD Oat cell CA	Hepatitis, azotemia	RUL atelectasis assoc. vol. loss and right pleural effusion	Blood: <i>H. influenzae</i>	Ticarcillin, amikacin, clindamycin	Died
D. 51/M/W	COPD SC CA of lung	CA esophagus, SVC obstruction	Bilateral pleural effusion	Blood: <i>H. influenzae</i> , Strep. Pneumonia Sputum: <i>H. influenzae</i>	Cefoxitin, amikacin	Died
E. 49/M/W		Pancreatitis, cholecystitis, alcoholism, azotemia	Linear atelectasis left lower lung	Gram stain: Gram neg. cocco bacilli, Gram pos. diplococci Blood: <i>H. influenzae</i> Sputum: <i>H. influenzae</i>	None	Died
F. 75/M/W	COPD	Alcoholism, ASCVD, CA prostate, esophageal stricture	Left lingular infiltrate	Blood: <i>H. influenzae</i> Sputum: <i>H. influenzae</i>	Cefotium	Recovered

CA = cancer
ASCVD = arteriosclerotic cardiovascular disease
W = white
M = male
SC = squamous cell

COPD = chronic obstructive pulmonary disease
RUL = right upper lobe
SVC = superior vena cava
neg = negative
pos = positive

HEMOPHILUS INFLUENZAE/Ortega

viewed as a ubiquitous organism of upper airways that only rarely was capable of producing respiratory disease. The pathogenicity of *H. influenzae* was documented by Goldstein⁴ in 1967, Wallace⁵ in 1978, and by McGowan⁶ in 1974. These papers included cases of bacteremic *H. influenzae* pneumonia, most of which were "typeable." In 1981, Wallace et al⁷ serotyped 58 isolates of *H. influenzae* from patients with pneumonia and noted that when serotyping was "carefully" performed, non-typeable strains were the most frequent pathogens. Since then, several reports in the literature^{1-3,8} have confirmed these findings. Non-typeable *H. influenzae* pneumonia is usually a disease of the elderly and debilitated patient, frequently insidious in onset, and associated with a mortality rate of 10% to 16%.

Summary

We have summarized six cases of bacteremic non-typeable *H. influenzae* lower respiratory infection that have occurred in our hospital over the last four years. Most of the patients were de-

bilitated with severe underlying disease. Five of six patients had chronic obstructive lung disease, but all also had azotemia, alcoholism, or liver disease. Because these patients were debilitated with multisystem disease, the diagnosis of pneumonia was frequently delayed. Unfortunately, empiric therapy did not provide optimal treatment for this organism. Bacteremic *H. influenzae* pneumonia was an insidious but lethal disease.

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Report of the Maternal Mortality Subcommittee Of the TMA Maternal and Child Care Committee

The Maternal Mortality Subcommittee of the Committee on Maternal and Child Care of the Tennessee Medical Association met two times during the past year. This is the second report of our activities in the state. Fig. 1 gives an overview of the maternal deaths per 10,000 live births from 1973 through 1982. As can be seen, the 1982 figure is the lowest recorded to date.

The Maternal Mortality Committee met once on Aug. 19, 1983 and again on April 9, 1984, reviewing a total of nine maternal mortality cases in detail. Of these, the subcommittee determined that four were due to direct obstetrical causes, four to indirect, and one non-related. The causes of the nine deaths are complications secondary to systemic lupus erythematosus, pulmonary edema at the time of repeat Cesarean section, sudden death at home three weeks post-Cesarean section, prosthetic mitral valve thrombosis with multiple emboli, postpartum hypotension of unknown cause resulting in renal failure, bradycardia, and ventricular fibrillation, necrotizing hemorrhagic pneumonitis with vegetative endocarditis, severe preeclampsia and liver rupture, amniotic fluid embolism, and postoperative Cesarean section infection. We present two cases for educational purposes.

Case 1

A 34-year-old woman was seen in the emergency room for sudden severe pain in the right lower extremities, with subsequent numbness and tingling in the left foot. Her legs and feet were pale with diminished sensation, and though femoral pulses were palpable none was noted below this level. A presumptive diagnosis of bilateral femoral artery emboli was made. A mitral valve prosthesis had been implanted approximately two years previously for rheumatic heart disease. One month prior to admission a pregnancy was diagnosed, and her physician stopped the warfarin (Coumadin) that she had been taking and initiated heparin, 5,000 units subcutaneously every 12 hours. On arrival at the emergency room, when her prothrombin time and her activated thromboplastin time were found within normal limits, immediate intravenous anticoagulation with heparin was initiated, and she was taken to the operating room, where emergency femoral embolectomy was

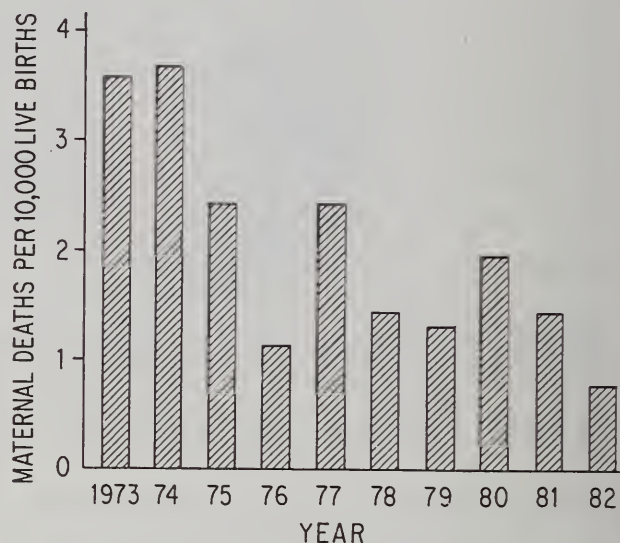


Figure 1. Maternal deaths per 10,000 live births in Tennessee, 1973-1982.

carried out under local anesthesia with extraction of the emboli and restoration of normal circulation. She was maintained on intravenous heparin therapy at a rate of approximately 6,000 units intravenously every four hours, but on the fifth postoperative day she developed lower chest pain, shortness of breath, and tachycardia. Her lungs were clear, and the prosthetic opening and closing sounds were sharp and distinct. No cardiac murmur was noted, and her PO_2 was 105 mm Hg and her chest x-ray unremarkable. An electrocardiogram was read as unchanged. Early the next morning the patient noted increased dyspnea and chest pain, and when chest x-ray revealed a right pleural effusion, she was taken to the coronary care unit, where an emergency lung scan suggested pulmonary emboli. An echocardiogram revealed normal mitral valve prosthetic valve function, but a Swan-Ganz catheter revealed moderate pulmonary hypertension. The impression at that time was that the patient had suffered either a massive pulmonary embolus or acute prosthetic valve dysfunction. Immediate surgery was scheduled, but she deteriorated very rapidly, became hypotensive, and developed profound cardiogenic shock and cardiac arrest which was unresponsive to resuscitative measures. Although autopsy did indeed reveal a right pulmonary embolus, the cause of death was related to extensive thrombus encasing the mitral valve prosthesis and impeding flow through the valve. A uterine pregnancy was present, but the embryo was proportionately small relative to the uterine size and gestational history, possibly indicating a blighted ovum.

Comment

This tragic case shows the significant risks that pregnant patients undergo with serious cardiac disease. More importantly, it highlights the necessity to maintain anticoagulation during the entire pregnancy. Since warfarin is a known teratogen, it should be avoided in the first trimester of pregnancy. Therefore, patients with a mitral valve prosthesis should be cautioned concerning warfarin's effect on the embryo prior to getting pregnant, and be changed to heparin therapy. Since heparin, however, at 5,000 units every 12 hours, is considered prophylactic and not therapeutic, this changeover should occur in a hospital with adequate amounts of heparin administered either subcutaneously or intravenously so as not to allow a period of non-anticoagulation to occur. Candidates for valve surgery should be considered for porcine valve replacement rather than the mechanical valves, as they do not require anticoagulation. Patients on warfarin who are being changed to heparin should not have their warfarin stopped until their partial thromboplastin time is at least one and one-half times normal. In this case it is assumed that the cessation of warfarin and the initiation of prophylactic heparin was a factor in the mitral valve thrombosis.

Case 2

A 30-year-old woman, gravida 3, para 1, abortus 1 with an uncomplicated prenatal course, entered the hospital in active labor. Her admission blood pressure was 140/80 mm Hg, but within an hour her diastolic blood pressure had risen to 100 mm Hg; 2+ albuminuria was also noted. When intravenous magnesium sulfate was administered, her diastolic blood pressure stabilized at 90 mm Hg, but she complained of a severe headache and epigastric discomfort, which subsided after several bouts of vomiting. Labor proceeded rapidly with delivery by low forceps of a normal female infant with Apgar scores of 7 and 9 at one and five minutes, respectively. Thirty minutes postpartum the patient became cyanotic, with a systolic blood pressure of 30 mm Hg. When intravenous fluids were increased and the magnesium sulfate discontinued, symptoms improved. Reexploration of the uterus failed to reveal lacerations or retained products, and her blood gases were within normal limits, but her hematocrit was 20%, which represented a dramatic drop from the admission hematocrit of 32.8%. A presumptive diagnosis of spontaneous rupture of the liver was made, and after surgical consultation, the patient was taken to the operating room for abdominal exploration. Several large lacerations were found in the right lobe of the liver at its inferior margin, and several smaller lacerations in the left lobe. The capsule was stripped from the liv-

er's anterior superior surface, but no hematoma was noted beneath the surface. An omental patch was placed over the large rupture site using Avitene* and Surgicel,** with a marked decrease in bleeding. The subhepatic space was drained and the patient was placed in the intensive care unit. Because continued bleeding from the drainage site was noted in the recovery room, the patient was reexplored and the right hepatic artery was ligated and a cholecystectomy was performed. Postoperative complications included adult respiratory distress syndrome, disseminated intravascular coagulation, pneumonia, and renal failure. Despite dialysis, massive blood replacement, and intensive antibiotic therapy, the patient died. At autopsy a ruptured liver was found with a large subcapsulated hematoma. Hepatic necrosis was present, most marked in the right lobe, and there was a subendocardial hemorrhage in the left ventricle of the heart. Pneumonia was present, along with multifocal infarcts of the spleen, intestines, and kidneys. A right temporal lobe infarct measuring 2.4×1.6 cm was present in the brain. The terminal event was thought to be sepsis due to *Enterobacter aerogenes* and *Cryptococcus neoformans*. A final diagnosis, therefore, of severe preeclampsia with spontaneous rupture of the liver with massive intraperitoneal hemorrhage was made.

Comment

Patients with eclampsia or severe preeclampsia should have liver involvement investigated by obtaining liver function tests. While the majority of patients with severe preeclampsia have some form of liver involvement, liver rupture is quite rare, but reported cases indicate a high mortality. It should be strongly suspected in individuals who develop a "shock-like" syndrome in either the antepartum, intrapartum, or postpartum period. Rapid surgical intervention is the treatment and the success depends upon the degree of liver lacerations. This case points out that while most patients with preeclampsia do well following delivery, a certain number will develop life-threatening problems, including rupture of the liver. Preventive measures may avoid the onset of severe preeclampsia.

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China Experience

THOMAS FITE PAINE, JR., M.D.

A year ago in China, I “paid a cock to Aesculapius.” It happened when I was part of a People-to-People* Infectious Disease delegation on a three weeks’ visit. We were asked, ahead of time, to submit topics on which we could lecture, if requested, at the hospitals and clinics we would visit. On arriving in Beijing (old Peking), I was asked to lecture, through an interpreter, at the Capital Hospital—formerly the famed Rockefeller-supported Peking Union Medical College.

Here I felt I paid a debt long due. In 1975 I was able to recognize a very scarce *Giardia lamblia* cyst as it rolled across the microscopic field, after many previous unsuccessful searches of my wife’s diarrheal stools. A short course of metronidazole then restored her health after three months of profoundly debilitating illness.¹ I could do this because I had been taught parasitology, as a Vanderbilt medical student, by Dr. Henry E. Meleney, who had studied parasitology at the Peking Union Medical College in the 1920s. As I lectured, I hoped that my words on the biology of antibiotic complications might prove as useful to some of the young Chinese physicians as Dr. Meleney’s teaching had been for me. This was the beginning of many moving experiences in China.

China seemed a marvel and a puzzle. It proved fascinating, overwhelming, entertaining, beautiful, stark, dingy, and exhausting. Our guides/escorts and our Chinese counterpart physicians and professors were hospitable, kindly, and considerate to the last degree. Workers on assembly lines in factories, and artisans creating fine calligraphy,

paintings and embroideries rewarded our curiosity and greetings with warm smiles and occasionally a word or two in English. Greeted by a man on the street, I asked had he learned English in school. He replied, “No, I learn English from Voice of America radio program!” In a pavilion on a mountainside, my wife and I said hello to three young men. Soon a dozen, mainly university students, gathered round. Through my wife’s few Chinese phrases and their few English phrases, we had a warm encounter. Perhaps our Southern accents led them to ask if we were from England. I said “Tennessee,” but no recognition, so I noted I was from Mississippi and this registered. They knew about the great river in the United States. Several had read Mark Twain.

Before going to China I found it difficult to believe reports that China had done away with prostitution and flies. The Chinese professors, in response to my question, stated that venereal diseases were so unusual that there were not enough cases for teaching purposes—that venereal diseases started to disappear when prostitution was virtually eliminated. And how was that done? By offering jobs to the prostitutes—they preferred working for a living rather than selling themselves. A remarkable accomplishment, even if not completely so.

The flies (*Musca domestica*) were something else. I could count these. In four days, in May, in Beijing, a city of about 9 million persons, I saw not one fly. Traveling south and visiting four other major cities with a combined population of over 6 million, I counted 19 flies! I asked was this the result of covering the entire landscape of China with DDT? No, I was told by a physician; each of the 1 billion Chinese was supposed to swat 50 or so flies a day! I then noted the presence of fly swatters in hotel rooms, on buses, trains, and planes. But, in addition, surely the breeding places of flies—decaying human/animal feces and

From the Department of Medicine, Vanderbilt University School of Medicine, Nashville, TN 37232 (Dr. Paine).

*The People-to-People International Citizen Ambassador Program was begun during the Eisenhower administration. President Eisenhower described it as “A voluntary effort of private citizens to advance the cause of international friendship.” The delegates pay their own way.

refuse—must have been vastly decreased. The virtual elimination of flies is a sanitary and public health triumph which boggles the mind.

The hospitals we visited looked much like the Boston City Hospital did when I arrived there in 1946. But the hospitals were clean and not overcrowded. Good laboratory work (not automated) was being done, x-ray facilities were Spartan, and small but adequate coronary care units were in use. Our Chinese infectious disease colleagues were well-read and up to the minute in current developments in this area of medicine. Hepatitis B virus infections may be their chief current problem. One half of the patients in one infectious disease hospital had hepatitis B infection. The Chinese have developed their own hepatitis B virus vaccine, and are trying it out. Prevention is the only hope for decreasing this disease. Since the hepatitis B virus genome is probably incorporated into the hepatic cellular DNA when the person is infected—for example, at birth, from the mother—there is no treatment for acquired infection and the later complications of cirrhosis and liver cancer. All the major antibiotics were available in the hospitals, but since some have to be imported they are used with admirable restraint.

I was impressed by the Chinese physicians' kindness toward, and rapport with, their patients in hospitals and clinics. We did not see surgery performed under acupuncture anesthesia but did see the carefully placed needles in use for the pains of arthritis and headache. Patients could choose either Western-style trained Chinese physicians or their traditional herb healers. The waiting rooms for the traditional healers always seemed rather empty so I assumed that most of the patients in the places we visited preferred Western-style medicine. This may not be true deep in the countryside.

An interesting "social" note: several members

of our group came loaded to lecture on AIDS. They were never asked to do so. The subject did come up in casual conversation; the Chinese physicians had read about it but were not interested as "it was not likely to become a problem in China." I suspect that homosexuality, like prostitution, is viewed as "unhealthy" by Chinese authorities. Our Chinese colleagues were surprised that AIDS should be such a problem in the United States.

All over China the people appeared well-fed and well-clothed. There was no begging, and no tipping. Housing is a big problem but everywhere we saw housing developments under construction—always brick. For the first time in hundreds of years there are no civil wars, foreign invasions, or famines. The Chinese are feeding themselves on foodstuffs raised in China. They have tackled their chief problem, overpopulation, with Chinese tenacity. The law is: one child per family. The child gets medical care, subsidies, and education to the highest level achievable. If a second child is born to a couple, the first child loses some of the benefits, the parents (both of whom usually work) lose seniority rights, and their taxes go up. This may be the only effective method of population control. We rarely saw couples with more than one child, at least in the cities. We were told that if China can stick to this plan, by the year 2000 the population growth curve will level off and then should decline. If this happens it will be another remarkable achievement. The Chinese may just have the determination and character to do this.

My most lasting memory of China will be the unabashed, constant, daily friendliness and cheerfulness of these hard working Chinese people who crossed our path. It was a warm experience.

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Desiderata Revisited

Like the original Desiderata, the document below was not found in Old St. Paul's Church in Baltimore, dated 1692. Rather, it is from the pen of a Memphis surgeon who is National Delegate from the Tennessee Division of the American Cancer Society. It was not found at all, in fact, but was delivered to me to be shared with our colleagues, particularly the young. It is good advice for these parlous times.—ED

DESIDERATA REVISITED

Go eagerly into the medical marketplace, not with noise and haste but with finesse and quietude. As far as possible without surrender be on good terms with all persons. Honesty is basic, particularly to thine self. * Speak your truth clearly; and listen to others, even the dull and ignorant; they too have their story. Especially listen to your patients and do not always let them perceive you are hurried. If you compare yourself with others you may become vain or bitter; for always there will be greater and lesser physicians than yourself. But align yourself with quality persons in all endeavors. Keep interested in your own career; it is a precious possession in the changing fortunes of time. Continue to sharpen your skills and adapt to change without compromising your ideals. * Exercise caution in your business affairs; for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals; and everywhere life is full of heroism. * Be yourself and do not feign affection but allow your patients to detect your concern about their welfare. Neither be cynical about love; for in the face of all aridity and disenchantment it is perennial as the grass. Your life partner is deserving of your best and your family deserving of undivided time and attention. Listen, really listen to your children when they are seven else they will not listen to you when they are seventeen. * Write legibly. Nurture strength of spirit to shield you in sudden misfortune. Many fears are born of fatigue and loneliness. Beyond a wholesome discipline be gentle with yourself. Act maturely. * You are a child of the universe, no less than the trees and the stars; you have a right to be here. Therefore be at peace with God and belong to a congregation of worship. There you will find the best people in the community despite the presence of a few disgruntled. Whatever your labors and aspiration in the noisy confusion of life keep peace with your soul. * Be not awed by prominent persons or your friends; Treat them as well as you do strangers! Join your medical society and participate in organized medicine. Finally, take kindly the counsel of the years, gracefully surrendering the things of youth. With all its sham, drudgery and broken dreams it is still a beautiful world. Remember the poor. Be careful. Strive to be happy.

adapted by John D. Pigott, Jr., M.D.
for young physicians

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CAT Scan of the Month

JAMES H. MONTGOMERY, M.D. and STEPHEN L. GAMMILL, M.D.

A 50-year-old hypertensive black man has a urinary tract infection, bilateral flank pain, and constipation. His prostate is not enlarged, but is high-lying and difficult to palpate. He is neurologically normal and has no difficulty voiding.

Please examine Figs. 1, 2, and 3 and choose the most likely diagnosis:

- (1) Rectal carcinoma
- (2) Prostatic carcinoma
- (3) Pelvic lipomatosis
- (4) Lymphoma
- (5) Retroperitoneal fibrosis

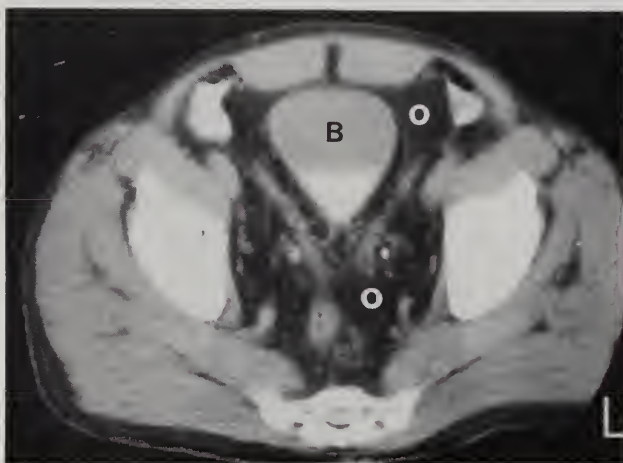


Figure 1. CT scan through the pelvis, with contrast medium layering in the dependent portion of the bladder. Fat has diffusely infiltrated the pelvis, surrounding the bladder, rectum, and ureters. (B = bladder, O = region of interest, measuring tissue density in the circle at -150 HU.)

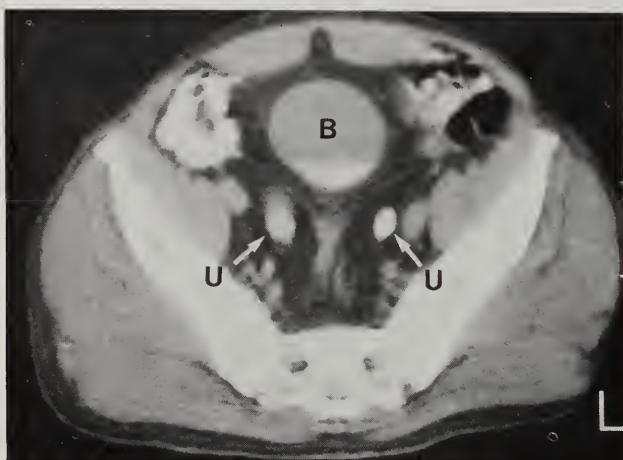


Figure 2. CT scan more cephalad than Figure 1. Dilated ureters are filled with contrast medium. Fat in the pelvis is again seen.

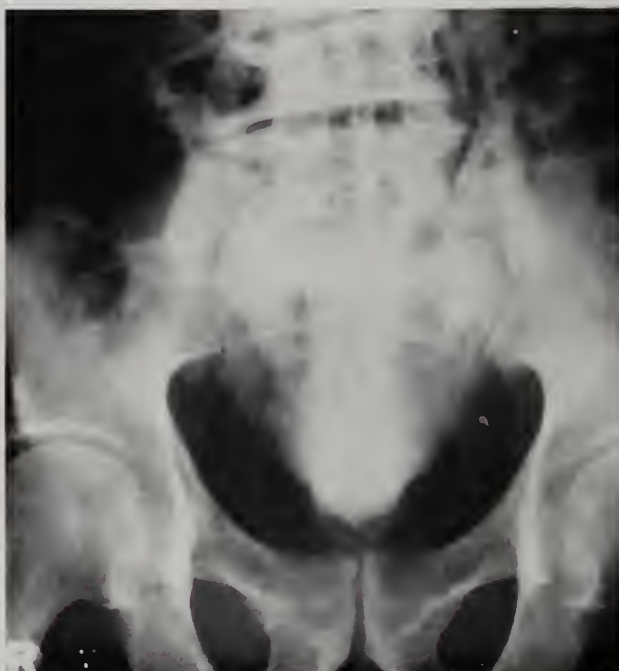


Figure 3. A 15-minute film during an intravenous pyelogram demonstrates a conical shaped, elevated bladder and dilated ureters.

Discussion

Pelvic lipomatosis is an uncommon disease. Most patients are black, there is a 10:1 male to female ratio, and the age range is 20-80 years. Its etiology is unknown. Symptoms are vague and nonspecific, and include urinary frequency, nocturia, pelvic or flank pain, dysuria, and constipation. Physical findings may include urinary tract infections, rectal bleeding, hypertension, obesity, vague suprapubic mass, and a high-lying prostate on rectal examination.^{1,2} Associated findings include cystitis glandularis, a premalignant condi-

(Continued on page 600)

From the Department of Radiology, Baptist Memorial Hospital, 899 Madison Ave., Memphis, TN 38146.

Successfully Resolved Geriatric Abuse Cases By the Geriatric Abuse Intervention Team

CURTIS B. CLARK, M.D.

This is the third article in a series relating to geriatric abuse. The incidence, etiology, the formation and utilization of an interdisciplinary Geriatric Abuse Intervention Team (GAIT) having been presented, we will now present case histories of cases in which a reasonable solution was achieved. The most desirable solution may not always be possible, but what we have tried to accomplish is the solution that will respect the individual's rights and still be morally, legally acceptable and will be the most humane.

The first case was that of a 67-year-old white widow who lived alone with her pet dog. Our first contact was made by the patient, her sister, and the Department of Human Services. Her living conditions were deplorable; the premises were soiled, and there was little or no food available. Even though her sister would occasionally bring her food, she would refuse to eat, apparently to irritate the sister. The patient was lethargic and slow to respond to questions; she wore a wig, and physical examination showed her to be very thin, pale, and very weak, with much loss of hair. Breath sounds were diminished over the right chest, with dullness to percussion. Her hemoglobin was 7.5 gm/dl, hematocrit 21%, and T₄ less than 1. Initial chest x-ray revealed a large mass, thought to be a malignancy. When discussing the need for hospital care, the patient agreed and stated, "I have gone as far as I can go." She cooperated until there was a need for invasive tests, which she refused. Almost daily her sister would agree to accept guardianship, but at the last minute would decline. At this point the indication from the hospital was to discharge the patient, but this did not seem appropriate. The GAIT was consulted, and the decision was made to go to

court, which granted custody to the Department of Human Services. When the patient alleged that a family member had \$1,200 of her money, investigation showed this to be correct, and the money was turned over to an appropriate person.

Further tests revealed that not only did the patient suffer from anemia and hypothyroidism, but she also had a very large empyema of the right chest. This was surgically drained and treated with large doses of procaine penicillin G intravenously. Over time, her thyroid dysfunction, anemia, and empyema cleared. She still resides in a local nursing home and has done well except for the development of a large gastric ulcer. Her hypothyroidism has remained because she would take the medication from her nurse but discard it when the nurse left the room. This case has been a prime example of personal neglect, family neglect, and financial abuse. The patient's attitude and refusal to cooperate has been a contributing factor in her dilemma.

The second case we shall present was that of an incompetent 53-year-old paraplegic veteran whose caretaker was a nephew who operated a home care center for veterans in an eastern state. They stopped in our city en route to Florida after the boarding home had been closed by authorities. When neighbors here reported verbal and physical abuse, our GAIT was able to enter the patient into our hospital for evaluation, when our psychologist member detected signs of violence in the behavior of the nephew-caretaker. The psychologist was able to make an agreement with the caretaker to visit only when he was present. The caretaker had been cashing the veteran's check for his own personal use; this was a typical situation where physical, verbal, financial, and possible sexual abuse occurred together—although there was evidence of sexual abuse in this case, we were unable to obtain conclusive proof.

From the TMA Long Term Health Care Committee. Dr. Clark is with the Family Practice Center, Department of Family Practice, University of Tennessee Center for the Health Sciences, Jackson.

During this period, the caretaker had also assaulted a food stamp employee (or representative).

The third case is that of an 81-year-old white woman who was very affluent. She had been cared for by her nephew, had round-the-clock sitters, and everyone was at her command. When we first saw this lady, she was taking, or had available, medications from 14 physicians. She had obviously been very demanding and the physicians would become frustrated, exhausted, and find some way to discharge her from their care. She had a large grocery sack of both prescription and over-the-counter medications. She made numerous phone calls to me, my secretary, and the nursing staff. It was our job to convince the patient and her caretaker that a nursing home, with a somewhat controlled environment, would be better for her. She was placed in a local nursing home where she had only one sitter, and the nursing home staff rendered the needed care. By this time she had shown significant organic brain dysfunction, and not only did she receive better care, but her family was able to have needed rest.

At the time this lady needed a conservator I thought I had no problem; a psychiatrist who had treated both the patient and her nephew was

called as a consultant. After the evaluation, however, the psychiatrist chose to disengage himself from the case, and though he was the one health care professional who could have resolved this case, he refused to render an opinion. This, in our experience, is not unusual, even though we try very hard to keep these physicians involved in decision-making. Our educational system has been lacking in that it apparently does not instill the value of their contribution and their professional comfort into the circumstances that at times may be very complex, trying and exhausting. No person can stand alone in the decisions that have to be made in order to serve the best interests of the clients.

The case histories presented here are but a few of the ones we have been able to resolve satisfactorily, though unfortunately we are not able to find solutions for all abuse cases.

I have tried to present geriatric abuse in all of its aspects—the numbers of occurrences, types of abuse, and typical cases. The GAIT with its multidisciplinary approach has been found to be workable. Our clients have almost always benefited, and have been grateful for our efforts, making this a satisfying professional experience for each team member. 

CAT Scan of the Month . . .

(Continued from page 598)

tion occurring in 75% of patients with pelvic lipomatosis.

The roentgenographic appearance is characterized by infiltration of the pelvis by mature unencapsulated fat in a very loose fibrous matrix. The radiolucent fat may be observed on plain abdominal films and often distorts the bladder and rectum and may occlude the inferior vena cava. This entity is readily diagnosable by computerized tomography because of the low attenuation coefficient of fat.³ (The attenuation coefficient is a measurement of tissue density. The standard currently used sets water density at 0 Hounsfield Units [HU]; fat has a negative number [about -50 to -100], soft tissue [muscle and organs] +30 to +50 HU, and bone above +300 HU.)

There should be no other abnormality in the

pelvis to explain the patient's signs and symptoms. The fat may elongate and displace the rectosigmoid superiorly and anteriorly. Compression of the distal ureters may be seen, as in our case. The bladder is elevated and assumes a teardrop configuration.

Computerized tomography usually provides a reliable diagnosis, rendering surgery unnecessary unless ureteral or colonic compression is significant.

FINAL DIAGNOSIS: Pelvic lipomatosis. 

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Documentation and Postoperative Management

J. KELLEY AVERY, M.D.

Case Report

A 55-year-old white man was seen in the emergency room of the hospital with cramping abdominal pain for 12 hours. For the past six hours, he had also had intractable nausea and vomiting. He had an appendectomy at age 8, and had had mild hypertension for the past five years which was adequately controlled on furosemide (Lasix) 20 mg daily. Physical examination revealed a temperature of 100°F, pulse 110/min, blood pressure 130/90 mm Hg. Examination of head, neck, chest, and heart were within normal limits. The abdomen showed slight distention, generalized tenderness, and hyperactive bowel sounds. An abdominal x-ray showed evidence of small bowel obstruction. His white blood count was 27,000/cu mm, with 92% segmented neutrophils. Serum sodium was 139, potassium 3.9, chloride 98 and CO₂ 28 mEq/liter. He was admitted to the hospital with a diagnosis of probable small bowel obstruction.

Shortly after admission, he was taken to surgery where he was prepared for an exploratory laparotomy. An IV was started and a large dose of antibiotics given. When his abdomen was opened, a closed loop small bowel obstruction was found, caused by an adhesive band from his previous appendectomy. The loop of the small bowel was cyanotic, but intact. On release of the obstructing band, the physician carefully explored the remainder of the abdomen and noted no additional pathology. By that time the bowel had greatly improved in color. Though the area where the adhesive band had crossed the small intestine was still described as somewhat "bruised," the surgeon believed it was viable and decided not to resect it.

The postoperative orders were of a routine nature, calling for 5% dextrose in Ringer's lactate solution IV at 125 cc/hr, nasogastric tube to suc-

tion, turn cough, and deep breath every two hours, routine vital signs, measure intake and output and sit on the side of the bed to dangle in the morning. The patient was kept in the recovery room for about an hour and then was returned to his room at about midnight. During the night his blood pressure was in the range of 100/70 mm Hg and his pulse was 100-110/min. His eight-hour output was less than 100 cc. The nurse notified the physician at 8 a.m. that the patient's temperature had increased to 102°F and a Tylenol suppository was ordered. At 10 a.m. the surgeon found his patient very lethargic, with temperature 103°F, blood pressure 88/50 mm Hg, pulse 122/min, and respirations, 26/min. Stat blood cultures, electrolytes, and CBC were drawn and he was prepared for immediate re-exploration, where a perforation was found at the site where the adhesive band had crossed the small bowel. The area was resected and an end-to-end anastomosis was performed.

Postoperatively the patient was sent to ICU where aggressive antibiotics, IV Dopamine, etc., were employed in his treatment. His course was downhill, and six hours after surgery he went into cardiac arrest. Resuscitation efforts were unsuccessful. The laboratory later reported that the blood cultures grew a Gram-negative organism.

About one month after this patient's death, the surgeon was called by the record room at the hospital and told that an attorney had inquired about the records. At this point the surgeon dictated his operative note, but dated it on the date of surgery. Further developments in this case revealed that the plaintiff attorney had secured conflicting statements from hospital personnel regarding the patient's treatment, contradicting the surgeon's operative note on the initial surgery.

The significant question in this case was whether or not the surgeon followed an appropriate standard of care by deciding not to resect this "somewhat bruised" area of small bowel at the initial surgery. Proof developed prior to litigation revealed that operating room personnel's

Dr. Avery is the medical director of State Volunteer Mutual Insurance Company.

description of this area of small bowel was diametrically opposed to the surgeon's description.

In spite of these difficulties, an expert witness testified that the surgeon's decision not to remove the bowel was a judgment call that could not be second guessed. On the other hand, the surgeon was deemed to have fallen below an acceptable standard of care due to his lack of aggressive postoperative management. Postoperative orders were not detailed as to how often vital signs were to be monitored or under what circumstances the surgeon was to be notified; postoperative blood studies were not ordered, aggressive antibiotic therapy was not continued postoperatively, and the surgeon had not seen this severely ill patient for approximately ten hours after surgery.

Although documentation of the aggressive efforts to treat this man was somewhat sparse, dictation of the operative note a month after the event, with erroneous dating, cast such a shadow over the entire case that the surgeon was at an extreme disadvantage, and a sizeable loss resulted.

Loss Prevention Comments

(1) Operative notes should be dictated as soon after surgery as is physically possible.

(2) Orders for postoperative management should be detailed, reflecting the surgeon's concern for close and adequate observation. In this case, the surgeon should have been specific about the circumstances in which he was to be called, i.e., falling blood pressure, inadequate urine output, etc. Although preoperative electrolytes were normal, postoperative electrolytes should have been ordered, since intestinal obstruction, nasogastric suction, and previous treatment with furosemide all tend to disturb electrolyte balance. The compromised bowel should have signaled the possibility of perforation and Gram-negative sepsis, and the surgeon should have been personally involved much earlier in the patient's postoperative management.

(3) Postoperative management should be as aggressive as the operative treatment and tailored to avoid or observe the most frequent and severe postoperative complications of any given procedure.

(4) This patient was maintained in the recovery room for only an hour. Upon his return to the floor, he was observed by nursing personnel who are generally less accustomed than recovery room nurses to the management of patients in the immediate postoperative period.



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Health Risk Behaviors of Adult Tennesseans

A knowledge of the frequency and extent of health risk behaviors in Tennessee is necessary for planning effective health promotion programs. The Tennessee Department of Health and Environment, in collaboration with the Centers for Disease Control, conducted a statewide behavior risk factor survey in August 1982 to estimate risk factor prevalence rates in Tennessee.

There were 797 interviews completed using a 36-item questionnaire developed by the Center for Health Promotion and Education, Centers for Disease Control, U.S. Public Health Service. Data were collected on the health risk behavior, the age, sex, race, educational achievement, and height and weight of respondents. Specific attention was given eight health risk behaviors: lack of seat belt use, cigarette smoking, obesity, sedentary lifestyle, uncontrolled hypertension, acute heavy drinking, chronic heavy drinking, and drinking and driving. Below are the results as well as comments on each of these items.

Seat Belt Use

- 8 out of 10 Tennesseans do not wear seat belts regularly (2.5 million Tennesseans).
- 50% of automobile-related deaths and injuries could have been prevented if belts were used.²
- Tennessee's 1990 objective is to increase seat belt usage among adults to 24%.³

Cigarette Smoking

- 32.7% of Tennesseans were smokers in 1982 (1.1 million Tennesseans).
- 73.4% of all smokers began smoking regularly before their 20th birthday.
- Cigarette smokers have a 70% higher overall death rate than nonsmokers.⁴
- Tennessee's 1990 objective is to reduce the proportion of adults who smoke to 25%.³

(This communication was derived from a paper developed by the Health Promotion Section of the Tennessee Department of Health and Environment.¹ Physicians interested in the study design, methodology and complete results of the 1982 survey may obtain the unabridged paper by writing to Tennessee Department of Health and Environment, Health Promotion Section, R. S. Gass Building, Ben Allen Road, Nashville, TN. Dr. Barbara Levin's editorial for this study can also be obtained upon request. Comments from her editorial were utilized in this article.)

Obesity

- 22.5% (750,000 Tennesseans) were 120% of ideal weight.
- Obese individuals have higher risks of hypertension, diabetes, coronary heart disease, accidents and certain cancers.⁵
- Tennessee's 1990 objective is to have only 19% (or fewer) of Tennesseans significantly overweight.³

Sedentary Lifestyle

- 12.8% (420,000 Tennesseans) were classified as "sedentary," 24.7% as "somewhat active," 32.8% as "moderately active," and 29.7% as "active."
- Benefits of regular exercise include loss of excess fat, decreased anxiety, and an increased sense of well-being, cardiopulmonary efficiency, and high-density lipoproteins.⁶
- The 1990 objective is to have 60% of adults 18 to 65 years of age participating regularly in vigorous activity and 50% of adults 65 years and older engaging in appropriate physical activity.³

Alcohol Abuse

- 12.7% (420,000 Tennesseans) were classified as acute heavy drinkers reporting five or more drinks on at least one occasion in the past month.
- 4.3% (140,000 Tennesseans) averaged 56 or more drinks in the past month and were classified as chronic, heavy drinkers.
- 2.7% (represents 90,000 Tennesseans in any given month) reported driving an automobile after having had too much to drink.
- Alcohol abuse is a factor in over 10% of all deaths and an unproven proportion of injuries.⁷ It is clinically associated with fetal alcohol syndrome, heart disease, cirrhosis, and cancers of the oral cavity, esophagus, pharynx, and liver. Excessive use of alcohol is involved in at least half of all traffic fatalities, 30% of small aircraft accidents, and 60% of all violent crimes.
- The 1990 objectives are: fewer than 11% of adults report five drinks or more on an occasion; fewer than 4% of adults report drinking

more than 56 drinks a month; fewer than 2% of adults report driving after having too much to drink.

Uncontrolled Hypertension

- 23.7% of those surveyed had hypertension and 19% of hypertensives (represents 135,000 Tennesseans) reported their blood pressure was not under control.
- Hypertension is the largest single contributor to stroke and a major contributor to heart disease and kidney failure.⁸
- The 1990 objective is to have 95% of adults getting their blood pressure checked at least annually and to reduce the percentage of uncontrolled hypertensives as follows:³

18-34 years	to 22%
35-44 years	to 18.8%
45-54 years	to 15.6%
55-64 years	to 13.4%
65 and over	to 14.6%

The Behavior Risk Factor Survey represents a major milestone in preventive health care for Tennessee. It provides a benchmark against which future efforts toward change can be measured. The Department of Health and Environment initiated a surveillance system in January 1984 to monitor these same risk factors using comparable methodology to the 1982 survey. This system will monitor the progress made toward each of the 1990 objectives.

The physician's role in health promotion activities must be central. In a recent Lou Harris poll, 92% of Americans regarded physicians as the most important and effective source of health information.⁹ Physicians have already made changes in their diet and exercise patterns and

only 21% of male physicians smoke in comparison to a national average of 39%. Now the challenge is to get physicians to "preach effectively what they practice well."

Recognizing the importance of lifestyle change as a basis for altering statewide health status, the TMA General Assembly and the Tennessee Health Officers adopted a resolution supporting the 1990 objectives established by the Tennessee Department of Health and Environment. Seven of these 26 objectives for Tennessee relate to the role the medical profession can play in changing individual health behavior. Changing behavior is never easy, but neither is it impossible.

It is impossible to change behavior of patients when health professionals are not committed to the benefits and necessity of change. We have become great masters of "High Technology" in health care but our challenge is to revive some of the "High Touch" practices like the art of counseling patients and families. 

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TENNESSEE MEDICAL ASSOCIATION
150TH ANNUAL MEETING
April 10-13, 1985
Hyatt Regency Hotel, Memphis, Tennessee



THOMAS K. BALLARD

The Way the Wind Blows

Tennessee is blessed with more species of trees than any state in the Union—from the stately oak trees towering above buildings in the city, to the pines which grace a good deal of the forest area of our state, to the peach trees in our orchards, and the Kentucky coffee tree which graces my front yard. Our trees turn green with the arrival of spring and brown with the arrival of fall. They suffer droughts of summer and the plentifulness of rain in the spring. They endure the summer heat and the winter cold. Most of the time the trees are in motion from the winds which God provides to us.

On a recent trip to Knoxville I had the opportunity to observe our trees as I drove along I-40 between Jackson and that East Tennessee city. It happened to be a day when the clouds were moving across the sky with a ten to fifteen mile per hour wind from the northwest. The sun was shining, and I thought to myself what a great day to be alive. The trees were bending to and fro, and I am sure that somewhere in the woods alongside the road a branch or two was falling to the ground as the wind broke limbs from the trees. We are blessed in our state with spring, summer, autumn, and winter. I am not sure that I would like to live in a climate where the temperature is constant year around and where the trees and shrubbery are continuously one color. The greenup time in the spring is wondrous to observe and the autumn is likewise beautiful to behold.

I am sure you are wondering how this correlates with the practice of medicine. It does, you know, because our practice of medicine sometimes vacillates day by day. We have many extraneous pressures put upon us which alter our practice. We have many restraints on our practice of medicine. We have pressures put upon us daily by our patients and by families of our patients, pressures that those who are not familiar with the practice of medicine are not able to understand. These many pressures may often cause some of us to bend with the way the wind blows. I will not be one to remonstrate to those of us who bend with these pressures. There are many circumstances that greet us with the arrival of each patient for which we are not prepared to cope.

Pressures are brought to bear upon our profession by our federal government, by our state government, and by third party carriers, greater than any other profession. These are changing times and we must be able to adjust. We must take a firm, positive attitude that we will provide quality medical care. We must dedicate a steady commitment to our fundamental professional ethics by putting the health and welfare of our patients above the economic or political situations in which we find ourselves. We as physicians need to propose rather than react to these situations.

Which way does the wind blow in your practice? Are you ready to rededicate yourself to providing or prescribing only necessary services, being conscious of the costs of health care, and recognizing that your prime concern is your patient's welfare? If we fully realize this then it makes no difference which way the wind blows. If we are always steadfast in the belief that our patients are the reason that we exist, then we will never bend.

Thomas K. Ballard MD

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OCTOBER, 1984

editorials

In Pursuit of Excellence

Some of the participants in this year's 23rd Olympiad peaked for the boycotted games held in Moscow in 1980, and have therefore been hanging on for a long time. The women's volleyball team has been practicing eight hours a day for eight years, and some of the athletes, like Bart Conner, Edwin Moses, and Tracy Caulkins—all 1984 gold medal winners—are senior citizens at

26, 28, and 21 years, respectively. Conner and Moses participated in the 1976 Olympic games and Moses was the gold medalist in his hurdles event that year. After his race this year he commented that cream will always rise to the top. That is an oversimplification. It *usually* will—unless it curdles or is homogenized.

On the chance that some of you may have been on the moon or deep in the earth in the summer of 1976, and perchance returned there during the first week of this August, thereby failing to become familiar with the name Bela Karolyi, I will tell you that in 1976 he was coach of the very successful Romanian women's gymnastic team that included the incomparable Nadia Comaneci. Later on, after having given this year's Romanian gold medalist Ecaterina Szabo her start, Karolyi decided not to accompany his team back to Romania after a meet in New York, but with his wife to remain in the United States instead. He found reaching the milk and honey that this land is said to flow with difficult, but eventually, through the help of the aforementioned Bart Conner, he landed a job as assistant coach at the University of Oklahoma, where Bart was enrolled. He finally wound up in Houston, where he now owns his own private gymnasium; it has 500 enrollees, the cream of thousands who have applied, among them two of this year's gold medalists—the phenomenal Mary Lou Retton and Julianne McNamara.

In Romania, Nadia and Ecaterina were removed from their homes at the age of 5 years to live in a special school to study under Bela Karolyi. In the United States Mary Lou left her home in West Virginia to live with a family in Houston, and Julianne's family moved to Houston, so they could study under Bela Karolyi. In Romania it was by edict and in the United States it was voluntary, but the sacrifice was the same. For the cream to rise requires sacrifice, but it also requires the proper environment to prevent its clabbering.

Clabbering is what milk does when it is allowed to sit around at room temperature. Unless the cream is skimmed off first, the curds encompass the butterfat. It is a passive process. Homogenization is an active process that keeps the butterfat in suspension in the milk. In either case there is no longer any cream. In either case, though the cream may rise, it will not stay cream unless it is skimmed off.

There are pursuits that allow for late bloomers, but that is seldom possible in sports, partic-

ularly in gymnastics, where one is unusually over the hill by the ripe old age of 20 or so. Talent must be spotted young and nurtured avidly, to be polished as gold for the gold by the likes of Bela Karolyi or Don Peters, coach of the U.S. Olympic team. Though the contribution of Tennessee State of such gold medalists on the track as Wilma Rudolph, Wyomia Tyus, and Chandra Cheesborough can be attributed to be sure to their natural talent and determination, that talent had to be nurtured by Coach Ed Temple.

All of this can be extrapolated to apply to any field of endeavor. There is no natural talent, or even genius, that cannot be improved by the touch of a master, and, except for the occasional genius, that touch is required for full development. The tragedy of our present public educational system is that with few exceptions it is directed toward homogenization, which is translated mediocrity. It is also generally underfunded. While homogenization prevents the formation of whey, it also precludes the production of cream. Though the Soviet system is implemented by force, it does skim off the cream—or even better, churns it to golden butter.

We maintain there is nothing that the socialistic system can do that the capitalistic system can't do better. This should be true, but in practice democracy in this country has been pushed to the illogical extreme of requiring that all individuals be equal. In theory, that is what communism also maintains, but realism dictates that just as there are thoroughbred racehorses and drays, so are there vast differences in capacity, both intellectual and physical, among human beings. This nation was founded on the principle not that everyone would be equal, but that every citizen be given the opportunity for maximal achievement. If everyone is to have a college degree, the ideal of the new deal, then the degree itself must necessarily be cheapened.

Not everyone, regardless of polishing, can be a Mary Lou Retton or a Bart Conner. I, for one, would fall off the balance beam after a step or two, provided I succeeded in standing on it in the first place, which is not very likely. On the other hand, not many of those gymnasts could edit a journal, though some might indeed do it, even better than I. Those should have the opportunity, and have proper instruction.

Somehow our priorities have become confounded, and unless we attend to that soon, we will have lost the principle that made America great—development of individual excellence. I

believe we are lacking in two closely related areas. One I have already referred to: our education system is fostering mediocrity in the guise of promoting equality. The other is our failure in developing skimmers of cream, or polishers of gold—ie, teachers. Suffering like the student population generally from a faltering education system, teachers are being taught how to teach but not what to teach. The better ones are both frustrated by the system's inadequacies and generally inappropriately rewarded for their efforts. Since we compensate those who entertain our children for a brief time on the tube far better than we do those to whom we entrust them for most of their early lives, prospective teachers have to think, why bother? It is not conducive to attracting our brightest young people into teaching careers, and that is where we need them most.

Mary Lou Retton's accomplishments have evoked a flood of applications to gymnasiums from young applicants nationwide. One hopes they will be appropriately screened and properly coached, though there is no assurance that they will be. This is a dangerous pastime, where young bodies can easily suffer permanent damage, and though life is full of uncertainties, it at least deserves a safe start.

J.B.T.

Into the Sunset

One August a few years back I attended a meeting in Los Angeles where most of the time the sun was a dull reddish-brown, and from my window high in the Hotel Bonaventure I often could scarcely see the Atlantic-Richfield towers only a couple of blocks away. It made a body think twice about breathing at all, let alone deeply. Consequently, I found the apprehension of the Olympic athletes—or probably more accurately their mentors—about that particular venue for the games not entirely unreasonable. As it turned out, all of those fears were unfounded, and about the most smog one could find appeared as a certain occasional dinginess of the air about the Santa Monica Mountains above Hollywood. It was as if Nature were on her best behavior just to taunt her detractors. None of the predicted horrors, in fact, came to pass—no major air pollution, no

terrorist acts, no impenetrable traffic jams, no real problem with the widely scattered sites; only a lot of vigorous, attractive young athletes playing their hearts out for the gold. Or were they?

It is hard to play a team sport—or perhaps I should say, it is hard for a group of athletes to play one at all successfully—if the players are committed only to their own personal golden dream. Successful team competition demands that the individual athletes form a team, and that implies commitment to the other team members and to the team itself. We watched that being fulfilled time and again in Los Angeles—in relays on the track and in the pool, by the gymnasts, and by the basketball, volleyball, and water polo teams, all of whom helped make the golden harvest reaped by the United States team the greatest ever.

United States team? According to Baron Pierre de Coubertin, founder of the modern Olympic games, the games are for the athletes, the honor not in the winning but in participating; through friendly competition, he believed, international friendship, and therefore peace, would inevitably follow. It is certainly true that a tremendous respect, and even sometimes friendship, develops between individual athletes. Nevertheless, time after time the athletes spoke of their joy in being a part of this great United States team. That it was unable to pit itself against teams from the Eastern bloc was the cause of both annoyance and sorrow. The stands were alive with American flags, which sometimes evoked reference to the unfortunate display of patriotism by American fans at the games, which was considered bad form, of course.

Since when is patriotism considered bad form? Ever since the Russians began exporting the Bolshevik revolution, with its Marxist philosophy, just after the first World War, is when. Allegiance was to be to the new world order of the laboring man, and not to national governments. That movement suffered a brief setback during World War II, but there were, and still are, those in every nation who have been willing to sell out the land of their birth for this preposterous notion. It should be evident even to those most besotted by idealism that anarchy, despite its appeal, will not work, or even happen. Someone will always govern; those leaders spawned by the international revolution have proved themselves above all others least fit to do it—that is, they have to those having any interest at all in individual rights. The state may philosophically be paramount, but its importance

pales into insignificance wherever the personal perquisites of its governing body are concerned. In addition, business cartels and banking interests also want to take us international; they are above all that government nonsense, a law unto themselves.

Viewing the games, I saw a lot of good natured enthusiasm being demonstrated by American fans, but not much belligerence. I watched them cheer on not only their own athletes, but the likes of the Portuguese winner of the marathon and the winning Brazilian soccer team, as well. I watched them go boisterously and noisily “ape” as our (and I *mean* our) basketball teams—male and female—swept to victory. What I saw is what I have seen everywhere in the past few years—a nation recovering from the pathologic introspection and self-flagellation of the Vietnam and Watergate years. It is not the happy, well-adjusted individual who is likely to start a fight, but the morose one. I suspect it is the same with nations.

I don't know about you, but I loved all the flag-waving, foot-stomping, back-slapping, hat tossing, noisy celebration of victory for *our* team. To those who thought that inappropriate, it might be appropriate to quote the very appropriate malapropism of a favorite of mine, Jean Kirkpatrick, our Ambassador to the United Nations, who once invited that body to walk eastward and disappear into the sunset.

J.B.T.



Frank Harlan Booher, age 79. Died July 24, 1984. Graduate of Vanderbilt University School of Medicine. Member of Lincoln County Medical Society.

Ira Monroe Gambill, age 90. Died August 1, 1984. Graduate of University of Tennessee College of Medicine. Member of Washington-Unicoi Medical Association.

Harold L. Neuenschwander, age 68. Died August 11, 1984. Graduate of University of Minnesota Medical School. Member of Knoxville Academy of Medicine.

Norman L. Ownby, age 42. Died July 16, 1984. Graduate of University of Tennessee College of Medicine.

Member of Chattanooga-Hamilton County Medical Society.

Merlin L. Trumbull, age 70. Died July 24, 1984. Graduate of University of Nebraska School of Medicine. Member of Memphis-Shelby County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY

Taylor Carson Weatherbee, M.D., Maryville

CARTER COUNTY MEDICAL SOCIETY

Richard G. Gallaher, M.D., Elizabethton

KNOXVILLE ACADEMY OF MEDICINE

Francisco G. Moreno, M.D., Knoxville

LAKEWAY MEDICAL SOCIETY

Salem F. Ganen, M.D., Morristown

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Jane Kirk Alissandratos, M.D., Memphis

George P. Alston, M.D., Memphis

D. Kevin Asa, M.D., Memphis

Richard W. Babin, M.D., Memphis

Thomas H. Crenshaw, M.D., Memphis

Sam Delk, M.D., Memphis

Timothy John Flynn, M.D., Memphis

Gilbert L. Hyde, M.D., Memphis

Oakley C. Jordan, Jr., M.D., Memphis

Kevin T. Kavanagh, M.D., Cordova

Jeffrey H. Lowry, M.D., Memphis

Donald Davis Owens, M.D., Memphis

William Thomas Rawlinson, M.D., Memphis

Nahed S. Sobhy, M.D., Memphis

Barry Franklin Thompson, M.D., Memphis

Tommy Clay Thompson, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE

Allen French Anderson, M.D., Nashville

Rex Elbert H. Arendall, M.D., Nashville

Darrell Gene Arnett, M.D., Nashville

Dennis Issac Bojrab, M.D., Nashville

William Tyree Finch, M.D., Nashville

John Pettry Greer, M.D., Nashville

James R. Hupp, M.D., Nashville

Paul Andrew Justice, Jr., M.D., Nashville

Patrick J. Lecorps, M.D., Nashville

Linda Shacter Lundin, M.D., Nashville

John A. Morris, Jr., M.D., Nashville

Michael E. Niedermeyer, M.D., Nashville

Judith H. Regan, M.D., Nashville

Jacqueline Lee Rodier, M.D., Nashville

Peter S. Roland, M.D., Nashville

Katherine Marie Rowe, M.D., Nashville

Barbara Burns Snell, M.D., Nashville

Paul Richard Sohmer, M.D., Nashville

James Nelson Sullivan, M.D., Nashville

(Students)

Charles Gregory Banks, Nashville

Gilbert Erich Boswell, Nashville

Karen J. Bowen, Nashville

William C. Burnette, Jr., Nashville

Mary Jane Butterfield, Nashville

R. Douglas Cullom, Jr., Nashville

Russ D. Erman, Nashville

Lee Ann Faulkner, Nashville

Timothy Gerard Givens, Nashville

Sally H. Houston, Nashville

Landon Stuart King, Nashville

Robert P. LaGrone, Nashville

Douglas W. Lowery, Nashville

Stephen F. Miller, Nashville

Theodore T. Miller, Nashville

H. Mark Swindle, Nashville

Terri J. Vrtiska, Nashville

WASHINGTON-UNICOI-JOHNSON COUNTY MEDICAL ASSOCIATION

Sharon K. Stafford, M.D., Mountain City

Frank T. Varney, M.D., Johnson City

personal news

Alan L. Graber, M.D., medical director of the Diabetes Control Program at St. Thomas Hospital, Nashville, has received the 1984 Pfizer Award as outstanding clinician in the field of diabetes.

Michael Hinds, M.D., was named chief of staff for 1984-1985 at Volunteer General Hospital in Martin. Other officers elected include *J. W. Shore, M.D.*, vice chief of staff; and *William Eason, M.D.*, secretary-treasurer.

James D. Snell, M.D., Nashville, has been elected president of the American Lung Association of Tennessee.

L. Hadley Williams, TMA executive director, has been elected secretary-treasurer of the 900-member American Association of Medical Society Executives. Mr. Williams served for the past four years as a member of the board of directors of AAMSE prior to the election that took place in Boston during the association's annual convention in August. Mr. Williams was also named to the board of directors of the Professional Convention Management Association earlier this year.

TMA Members Receive AMA Physician's Recognition Award

Thirty-two TMA members qualified for the AMA Physician's Recognition Award during July 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Bebe A. B. Avery, M.D., Knoxville
Harry Baer, M.D., Nashville
Robert L. Barnes, M.D., Knoxville
William B. Berry, M.D., Chattanooga
John C. Brothers, M.D., Nashville
Paul E. Brown, Jr., M.D., Johnson City
P. Castelnuevo-Tedesco, M.D., Nashville
Lawrence L. Cohen, M.D., Memphis
Thomas K. Creson, Jr., M.D., Memphis
Thomas H. Curtis, M.D., Chattanooga
Malcolm B. Daniell, M.D., Chattanooga
Thomas C. Farrar, M.D., Nashville
William T. Farrar, M.D., Nashville
James W. Gibson, Jr., M.D., Johnson City
John H. Gilliam, M.D., Knoxville
Joel T. Hargrove, M.D., Columbia
Bruce E. Jones, M.D., Nashville
Elsie P. Ollapally, M.D., Madison
Carolyn C. Price, M.D., Memphis
Norman S. Propper, M.D., Kingsport
Omer C. Renner, Jr., M.D., Morristown
Barrett F. Rosen, M.D., Nashville
Charles S. Ruark, M.D., Old Hickory
Jorge E. Salazar, M.D., Memphis
Robert L. Sendele, M.D., Chattanooga
S. Steve Snow, M.D., Nashville
Richard B. Stewart, M.D., Nashville
Harry L. Stuber, M.D., Cookeville
Vincent B. Tolley, M.D., Sevierville
Forrest G. Tompkins, M.D., Knoxville
Ralph E. Wesley, M.D., Nashville
Robert L. Wingate, Jr., M.D., Memphis

announcements

CALENDAR OF MEETINGS

NATIONAL

- | | |
|----------------|---|
| Nov. 1-3 | Association of Planned Parenthood Professionals—Marriott Hotel, San Antonio |
| Nov. 1-3 | Society for Ear, Nose and Throat Advances in Children—New Orleans |
| Nov. 3-6 | Eye-Bank Association of America, Palmer House, Chicago |
| Nov. 4-7 | Southern Medical Association, New Orleans |
| Nov. 4-8 | Association of Military Surgeons of the U.S.—Town & Country, San Diego |
| Nov. 5-10 | American Society of Cytology—Atlanta Hilton |
| Nov. 6-10 | American Epilepsy Society—Hyatt Union Square, San Francisco |
| Nov. 7-10 | International Society of Ophthalmic Ultrasound—St. Petersburg Beach, Fla. |
| Nov. 11-14 | Academy of Psychosomatic Medicine—Bellevue Stratford, Philadelphia |
| Nov. 11-15 | American Academy of Ophthalmology—Convention Center, Atlanta |
| Nov. 11-15 | American Public Health Association—Anaheim, Calif. |
| Nov. 12-14 | International College of Surgeons, U.S. Section—Pointe Resort, Phoenix |
| Nov. 12-15 | American Heart Association—Miami Beach |
| Nov. 13-18 | American Medical Women's Association—Waldorf Astoria, New York |
| Nov. 16-20 | Gerontological Society of America—Convention Center, San Antonio |
| Nov. 25-30 | Radiological Society of North America—Convention Center, Washington, D.C. |
| Nov. 29-30 | American Society of Dermatopathology—Washington, D.C. |
| Nov. 30-Dec. 3 | American Society of Contemporary Ophthalmology—Sahara Hotel, Las Vegas |
| Dec. 1-4 | American Society of Hematology—Fontainebleau, Miami |
| Dec. 1-6 | American Academy of Dermatology—Washington, D.C. |
| Dec. 5-8 | Cervical Spine Research Society—Hilton Hotel, New Orleans |
| Dec. 6-9 | American Academy of Psychoanalysis—Roosevelt Hotel, New York |
| Dec. 8-9 | National Kidney Foundation—Sheraton, Washington, D.C. |
| Dec. 19-23 | American Psychoanalytic Association—Waldorf-Astoria, New York |

STATE

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| Nov. 5-9 | Tennessee Academy of Family Physicians—Gatlinburg |
|----------|---|

Teen Pregnancy: New Initiatives For an Old Problem

JOHN W. GREENE, M.D.

Nearly 15% of all babies born in the United States have teenagers for parents. Concurrently, statistics indicate that more than 30% of all reported teenage pregnancies are terminated by abortion. Although many developing countries exceed the United States in the proportion of adolescent women bearing children, the level of teenage reproductive activity in this country consistently exceeds that of other industrialized nations. With 1.1 million adolescent girls conceiving each year, teenage pregnancy becomes a significant problem of national, state, community, and even more directly, practicing physician concern. The scope of the problem is even greater than these figures suggest. Teen pregnancies are usually coupled with an increased morbidity to the child born to the very young girl, substantial psychosocial effects on the mother, father, and child, and a financial burden to the American taxpayer.¹

Historical Perspective

From the early 1900s to the end of WWII, the incidence of adolescent pregnancy and childbearing was relatively low, but in post-WWII society

adolescent marriages and childbearing were quite common. During 1949, the birthrate for women ages 15 to 19 was 81.6 per 1,000. In 1957 it rose to 96.3 per 1,000 women, and in 1975 it dropped to 63.3 per 1,000 women in this age group. Another criterion that is more reflective of our current problem is the incidence of illegitimate births per 1,000 women. The illegitimacy rate for young women 15 to 19 years of age increased from 25.8 in 1966 to 32.8 in 1975 and 41.7 in 1982. Even more women are apparently choosing to have children out of wedlock in the 1980s than in the 1960s and 1970s.²

Trends in Tennessee

The Tennessee teenage birthrate per 1,000 female population exceeded the comparable United States rate each year from 1950-1980.³ Currently, the Tennessee birthrate for this age group seems to be decreasing, but the number of abortions from 1974 to 1982 shows a greater percentage increase than the corresponding decrease in the number of births (Fig. 1). Forming accurate conclusions about the rise in both the number and rate of reported abortions is difficult, however, due to underreporting during the early years of abortion legalization.

Several trends in teenage natality statistics for the years 1950 through 1982 in Tennessee have

From the Division of Adolescent Medicine, Vanderbilt University Medical Center, Nashville.

Reprint requests to Division of Adolescent Medicine, Vanderbilt University, Nashville, TN 37232 (Dr. Greene).

TEEN PREGNANCY/Greene

been observed. Both the numbers of births and the birthrate per 1,000 female population aged 10 to 19 years decreased. During the 1950s the birthrate for mothers aged 10 to 14 fluctuated between 1.3 and 1.6. In 1973-1974 the birthrate for this age group peaked at 2.4, then in 1982 it decreased to 1.6. A decline in the total number of births to 10 to 14 year olds also occurred. In 1973, 458 births were reported in this age group, and 292 in 1982. Legalized abortion came into effect during this period.

Conversely, the peak birthrate for 15 to 19 year olds occurred in 1951, when the rate was 103.4. After 1958 the birthrate of this age group showed a steady decline to 59.7 in 1982. A declining birthrate does not always mean that there has been a declining number of births. While teenage birthrates in the United States decreased from 1960 to 1974, the number of women aged 10 to 19 grew from around 15 million to over 20 million, and the actual number of births stayed about the same, dropping from 609,000 only to 608,000. This indicates that even if a substantial decline in birthrates occurs for teenagers, the problem in terms of actual numbers of women, children, and others involved has not changed substantially.⁴

In Davidson County during 1983, 1,190 women between the ages of 12 and 19 gave birth. Reports show 739 concurrent abortions on women 19 years of age and under in Davidson County during 1983. Shelby County reports a total of 2,309 births to those aged 19 and under, with 1,115 abortions. State totals for 1983 report 11,829 live births to girls 19 years of age and under, and 5,268 abortions for the same age group. These numbers indicate that for teens, abortions in the state of Tennessee total nearly one-half the total of live births.⁵

Statistics on illegitimate births are very pertinent in any analysis of birth trends, both in Tennessee and nationwide. According to the Personnel Clearinghouse of the University of Michigan, 40% of babies born to teenagers are born out-of-wedlock. Of even more significance, 25% of those teenagers will become pregnant again within a year. Since 1950, the percentage of illegitimate births to teenage mothers has increased substantially. In fact, the overall percentage increase in Tennessee has quadrupled, from 5.8% in 1950 to 20.9% in 1982. For mothers aged 10 to 14 years the percentage of illegitimate births has risen from 56.2 in 1950 to 85.3 in 1982. For 15 to 19 year

olds, the proportion of illegitimate births in 1982 (44.7) was three times that of 1950 (14.3).

Racial Comparisons

Race has a definite impact on birth trends in Tennessee. For simplicity, categories discussed will be referred to as white and non-white. From 1950 until 1982 birthrates for all races generally declined; however, non-whites experienced a somewhat greater decrease after 1974 than whites. The real difference comes in the figures for the very young teens, where birthrates for whites are lower than for non-whites, but rates are increasing for the former and decreasing for the latter. Forming conclusions about the rates' possible convergence is premature, because they are still quite far apart. It is a notable fact, though, since non-whites' fertility rates for teens have traditionally been much higher than those of whites. Authorities speculate that the disparity between white and non-white fertility rates is influenced by greater sexual activity of non-whites at younger ages and possibly earlier maturation of their reproductive systems. The National Center for Health Statistics reports that 21% of all non-white women are menstruating by age 11 as compared to only 11% of white women. Interestingly, this racial difference at menarche is found within all categories of income and place of residence and in all geographic regions except the South. A Johns Hopkins survey reports, however, that white teenagers who are sexually active tend to be less discriminate and more sexually active than non-whites of the same age. Sixteen percent of the white teenage women reported having four or more partners, while 11% of the non-white teens reported the same. An equal percentage (60%) in both races reported having one partner. Non-white women were less likely to have had intercourse during the month before the survey.⁶

Failure to Use Contraceptive Measures

Sexual activity among teenagers has increased dramatically in recent years. Most current surveys estimate that 50% to 60% of all teenagers will have had intercourse by the time they are 19. At the same time, nearly two-thirds of unwed teenage women report that they never practice contraception or that they use a method inconsistently.^{7(p14)} What reasons do most teens give for their decisions about contraception? Many young women fail to use contraception because they do not feel that they are at risk of pregnancy. The number one reason given for not using contra-

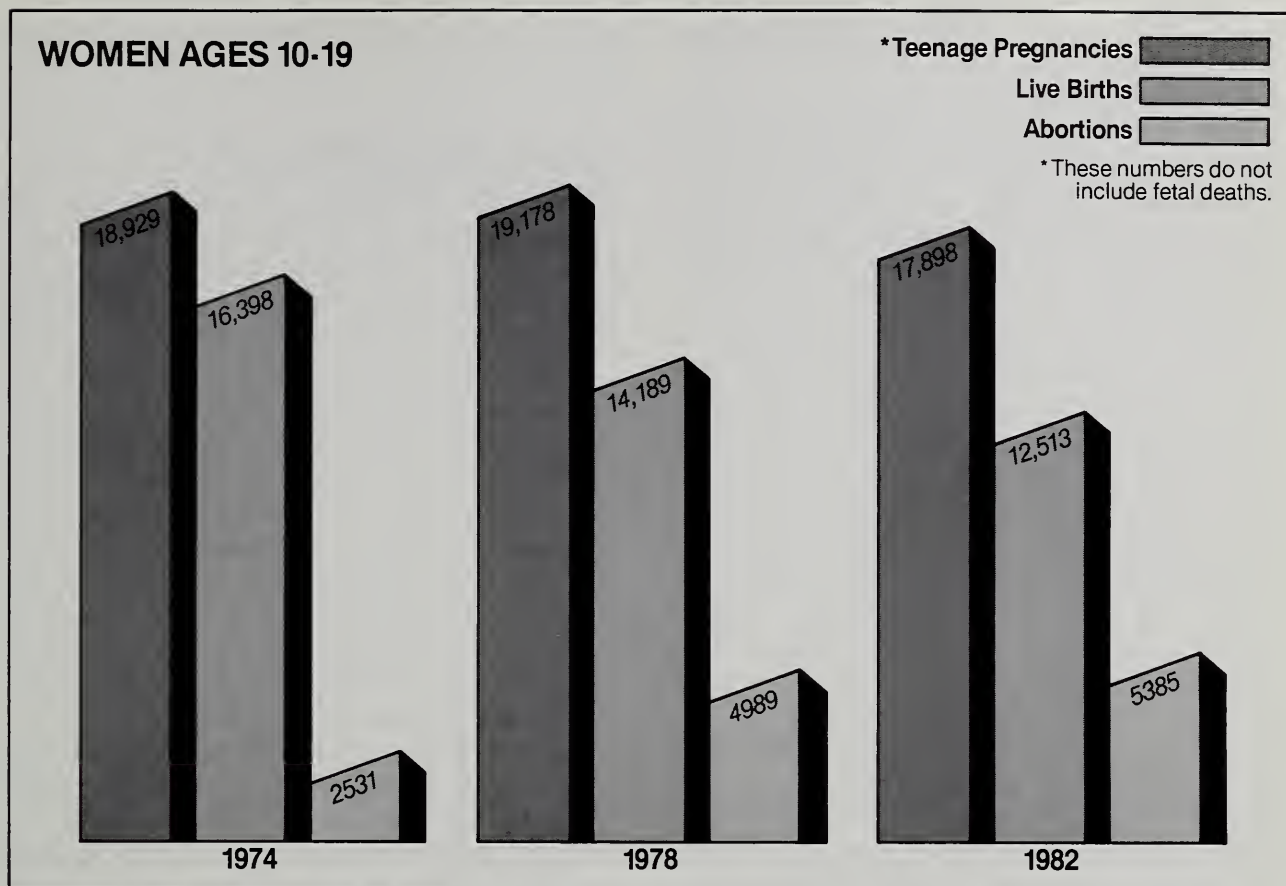


Figure 1. Teenage pregnancies and their resolution in Tennessee.

ceptive measures was that they thought it was a time of the month in which they could not become pregnant, yet only 67% of the whites and fewer than 27% of the non-whites surveyed correctly identified the middle of the menstrual cycle as the most fertile period and therefore the most "unsafe." Of those that realized that they could become pregnant, the most common reason they gave was that they had not expected to have intercourse. About 8% said that they either couldn't get contraception "under the circumstances" or didn't know about contraception or where to get it. It appears from this that teens have a very unclear perception of the relationship between sex and reproduction, and that sexual information is obviously not being accurately conveyed even in this age of mass communications.

Sex Education

Sex education has been one of the most controversial subjects of the last decade, and is continuing to follow the same pattern in the 1980s. Perhaps an even more controversial issue than the

initiation of sex education is the question of its effects (psychological, attitudinal, behavioral) on youth.

Many achievements are expected of sex education, including changes in student knowledge, attitudes about sexual matters, self-perceptions, decision-making, communication, and other interpersonal skills. These goals are extremely demanding, and it is unrealistic to expect sex education to reach them all. To further explain this comment, consider the criteria used to evaluate other academic subjects. English classes, for example, are not evaluated for their ability to change the reading or speaking habits of students outside of class, nor are health classes evaluated for their ability to improve a student's health. Unlike other educators, sex educators have recognized the responsibility for evaluating their influence on students' lives outside of class.⁸

For two primary reasons it is especially difficult for sex education classes to change attitudes and behaviors. First, teens receive an enormous amount of information about sex from peers, lit-

erature, television, parents, and other sources. Second, sexual behavior of teens is influenced by their own emotional, sexual, and social state. Therefore, it is probably not realistic to expect one semester of formal sex education to suddenly change 15 years or so of set ideas, expectations, and behavior.

Most studies on the effects of sex education on attitudes of teens reveal that courses appear to make the students more tolerant of the sexual practices of others, yet they do not significantly change their attitudes about their own sexual activity. From this, it would seem that the concern that sex education in high school will make students "less moral" is not validated by research.

Most studies of the effects of sex education on behavior have been conducted among college students. Because of age and experience differences, the implications for teenagers could vary. A study by Lance^{8(p560)} showed that none of the college students in the experimental group reported engaging in sexual intercourse during the course if they had not already done so previously. Similarly, an experimental design of 203 college students by Godow and La Fave found that none engaged in kissing, necking, petting, or premarital intercourse during the course if they had not done so before. In summary, college courses do not appear to increase sexual activity of students; on the other hand, studies fail to support the idea that sex education will reduce sexual activity.^{8(p561)} Most do indicate that courses on contraception will increase the use of more effective means, and decrease sexual activity where contraception is inadequate.

Increasing the student's knowledge and awareness about sexuality is clearly a result of sex education. Unfortunately, this knowledge is often not sufficient to keep the teen from a sexual relationship or pregnancy. Family life education is becoming an important part of human sexuality education in Tennessee schools. This begins in the early grades and is designed to teach human sexuality in the context of the relationships and responsibilities of the family. The most successful family life education programs have been those that had the active support of families and communities. This is a unique concept, in view of the erosion of the family structure over the last few decades. Various types of programs have varying results on teenagers. Educators must define the goals they are trying to achieve and design pro-

grams to meet them. Finally, accurate methods must be developed to gauge the effectiveness of the programs.

Social, Psychological, and Health Perspective

Various health, psychological, and social problems face the very young woman who becomes pregnant. Almost half of adolescent mothers drop out of school because of pregnancy or marriage. If they do not finish school, they inevitably face a future of difficult employment, and probably financial strain. Lack of child care is often another obstacle for teenage parents that may further limit their chances of returning to school. Marriage often becomes a temporary solution for many teens in this situation, but couples that marry before age 20 have a much greater risk of divorce than those who marry later. An early birth in marriage or an illegitimate child at the time of marriage can aggravate the difficulties.

Other risks associated with early childbearing may include abuse to the child or suicide of the mother. Since the living conditions of teenage mothers and their children can often be more stressful than the norm, these risks are increased. Often the child is unplanned and unwanted. The mother may not have the societal and financial support that is available to older mothers or even the support of the child's father. Since the woman is younger and less mature, she is probably also less prepared to deal with the demands of motherhood.

The teenage mother often has unrealistic expectations for her child. She expects the baby to freely give love and affection and to fill a void in her own life. Of course, she learns soon that the baby is not capable of meeting her expectations. Some mothers respond by losing interest in the child and others respond with physical and mental abuse. The resulting situation is often a withdrawn, fearful baby and a disillusioned mother.

Adolescence is a period of continuous, rapid change. Various levels of conscious decision-making, knowledge, and responsibility exist among young mothers. Deficient self-esteem often seems to surface in conversations with these young mothers. Many of them feel that there has been no direction or plan for their lives, and as a result, they feel that they have no reason to control their actions and no real goals to use as a target for their energy. Perhaps as a characteristic of all youth they fail to consider the consequences of their own actions. Rather, they choose to live for

the moment and hope for the best. Counselors of pregnant teens report that often these young women refuse to believe that they are really pregnant and think that "it will go away."

Many pregnant teens also fail to seek prenatal care until the fifth or sixth month of pregnancy. This lag may be partially responsible for increased morbidity and mortality in adolescent mothers and their babies. The maternal mortality rate is highest for women under 15 and still relatively high for women aged 15 to 19. Toxemia, and its related complications, preeclampsia and eclampsia, are frequently cited as medical risks in teen pregnancy. Generally, the younger the mother the greater the risk of toxemia. Some studies have concluded that toxemia is more closely related to insufficient prenatal care than to age. Other frequently mentioned risks for the teenage mother are cephalopelvic disproportion, prolonged labor, anemia, uterine dysfunction, infections, and postpartum hemorrhage. The risks generally increase with parity so that the 16-year-old that is expecting her first child may not be at any appreciable risk, while in the 16-year-old expecting her second or third the health risks are considerably increased.⁹ Babies born to teenagers are two to three times more likely to die during their first year of life than babies born to mothers of 20 years or older. One explanation for the higher mortality among babies born to teenagers is the higher incidence of low birth-weight. Besides the increased risk of death, low birth-weight is related to a number of developmental problems for the infants involved, including cerebral palsy, epilepsy, and mental retardation. Obviously, not all low-birth-weight babies suffer from these complications, but the risks are clearly increased.¹⁰

Abortion

Women aged 15 to 19 terminate nearly two-fifths of their pregnancies by abortion, and more than half of all pregnancies among girls younger than 15 are aborted.^{7(p52)} Throughout the 1970s, about three in every ten abortions were obtained by teenagers, for a total of 2.2 million abortions between 1972 and 1978 for women age 19 and under. Generally, the higher a teenager's socioeconomic status, the more likely she is to end a pregnancy by abortion. In Rhode Island, a state largely white and Roman Catholic, 56% of all pregnancies to teens living in the highest status areas were terminated by abortion in 1978. Another 32% resulted in live births. Among the

teens living in the poorest areas, 22% of pregnancies terminated in abortion, and 63% in live births.¹¹ Teenagers are much less likely than women in their 20s to obtain abortions at the safer, earlier weeks of gestation. In fact, the younger the girl, the more likely she is to have a delayed abortion, which increases the health risks involved with the process. Case data from a university study in England on women that had abortions under the age of 16 reveal a disturbing view of obstetrical and gynecological complications later in life, most notably, the risk of trauma to the cervix, which tends to be smaller in the younger teenager. This risk appears to be greater than that among women 20 years of age or older.¹² Because of the relative newness of legalized abortion, its latent physical and psychological effects on young girls are still unknown, but considering that the abortion ratio (number of abortions per 1,000 live births) for women under the age of 15 in 1974 was 1,156, it does become an issue of significant concern to the medical profession.¹³ Failure to be aware of current legislation on abortion, as well as precedent set in prior cases, is a potentially dangerous practice for involved medical professionals (see Appendix).

Adoption

Adoption is an alternative to child-rearing that has experienced a sharp decline during the last decade. Two factors contribute to this decline: first, an increased availability of abortion as an alternative, and second, more unwed mothers opting to keep their babies. A representative of the Child Welfare League testified: "In adoption agencies about five years (ago), of all the mothers who came in asking for adoption services, approximately 80% would choose to place their children for adoption, and about 20% would choose to keep their children and raise them. That figure has reversed. The figure now is 80% to 90% of the mothers coming to the adoption agency choose to keep and raise their children, and only 10% to 20% place their children for adoption."¹⁴ A source from a Tennessee adoption agency reports an even more grim outlook for local adoption services. He says that of all illegitimate pregnancies in Tennessee, approximately 58% of the women choose abortion. Of those women that elect to have their babies approximately 96% opt to keep them. Obviously, the number of babies left for adoption are few. There are many children available for adoption, but they are in categories of low demand, such as minori-

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ties, 9 years of age or older, handicapped, or families of children. To adopt babies, many couples are resorting to the "black market," where profiteering is rampant.

Conclusions and Implications

From most indications, it seems that we are not doing an adequate job in dealing with the problem of teenage pregnancy at a national, state, or even community level. Is the solution more federally funded programs and more legislation dealing with adoption and abortion? Certainly these will be important, but the responsibility also lies with those that see these teenagers every day: parents, educators, agencies in the private and public sector, and the medical profession.

In recognition of the problem of teenage pregnancy in Tennessee, Senator Douglas Henry, Jr. formed the Committee on Adolescent Pregnancy. In the past year, this group, consisting of various private and public agencies, has initiated several progressive programs.

Extensive research on human sexuality education programs in Tennessee was conducted. A curriculum guide for family life education, which had been developed by the Tennessee Department of Education, was examined by the committee. After adjustments were implemented, the guide was supported by the committee and forwarded for use in Tennessee public schools as a reference for more individualized programs in the various communities.

Because there was no statewide method allowing access for adolescents to available community services regarding pregnancy, a statewide toll-free telephone number was established. This line is being funded through two Tennessee State departments for a one-year trial period and is operated by Crittenton Services of Nashville. Specific information about services available in various communities is also provided. Many professionals that work with adolescents expressed the need for a printed listing of available resources for pregnant teens. The Tennessee Department of Health and Environment developed such a printed listing, which includes the toll-free number.

Public awareness of the availability of adoption services is poor throughout the state. In response to this deficiency, an adoption brochure was developed by the Tennessee Department of Human Services. This brochure includes infor-

mation on the adoption process and a listing of adoption programs in Tennessee. Along with various other activities, the committee stays abreast of national and state legislation on all areas of teenage pregnancy including education, medical care, abortion and adoption.

The immature psychological and physical development of teenagers increases the physician's responsibility to be more sensitive and responsive to the sexually active youth. Physicians must gain an understanding of the psychologically immature, yet increasingly sexually active teenager. To do this more effectively, a counseling relationship should be developed with pre-teenage patients. Often, teens really want to discuss sexuality with someone, but do not know how to approach the subject. Discussion could be initiated by asking questions like "Well, how is school going this year?" "Do you have a boyfriend or girlfriend this year?" The goal would be to create a rapport in which the teen feels free to discuss questions about changes in the body and sexual roles.

Community, school, or church group counseling sessions are an effective way to reach and educate those teens that might not make regular visits to doctors. These may be led by physicians, nurses, or social workers and promote open discussion among the teens about all areas of sexual development and activity. The sessions should also include information about where to obtain birth control and other services such as pregnancy and venereal disease testing, counseling, prenatal care, and adoption agencies. Greater access and awareness by adolescents to safe and effective contraception may help reduce the incidence of adolescent pregnancy and concomitant risk.

Unfortunately, many teens that become pregnant never go for regular check-ups. Counseling sessions are often either not available, or are poorly publicized in many communities, but more and more doctors are volunteering their services for counseling, prenatal and postnatal care, and other general medical care. Providing volunteer medical care and counseling is one of the most effective ways that we can combat the problems associated with teenage pregnancy. Supportive medical relationships with teens may help prevent unwanted pregnancies.

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APPENDIX

THE LEGAL IMPLICATIONS INVOLVED IN PERFORMING ABORTIONS ON TEENAGERS HAVE BEEN UNCLEAR SINCE THE LEGALIZATION OF ABORTION IN 1973. RECENT OPINIONS PROVIDED BY THE TENNESSEE OFFICE OF THE ATTORNEY GENERAL ADDRESS THESE ISSUES. THE FOLLOWING QUESTIONS AND OPINIONS WERE SELECTED BY THE WRITER FROM A COMPREHENSIVE DOCUMENT.

Q. Are their currently any enforceable laws, peculiar to minors, regulating abortion? Does a physician performing an abortion on a minor incur any risk of liability not present in performing an abortion on a legal adult?

A. There are no enforceable laws in Tennessee regulating abortion that are peculiar to pregnant females under the age of 18. Also, as long as a physician secures *informed consent of a mature minor and otherwise complies with the law, he should incur no greater liability.

Q. In view of decisions of Tennessee Courts and the United States Supreme Court, what provisions now found in *Tennessee Code Annotated* directly regulating abortion are valid and enforceable?

A. T.C.A. Sec. 39-4-206(a) and (b) An infant prematurely born alive during an abortion shall have the same rights as an infant of similar status prematurely born spontaneously. The physician who delivers an infant prematurely born alive during an abortion shall provide the same medical care as if the infant had been spontaneously born alive. Any person who violates this section shall be guilty of a felony.

T.C.A. Sec. 39-4-201(c) part 2 If a fetus is viable, the attending physician must certify in writing to the hospital and the local district attorney general that the abortion or attempt to procure miscarriage is necessary to preserve the life or health of the mother.

*The opinion warns that special attention should be paid informed consent (T.C.A. Sec. 39-4-202(a)) because of the increased likelihood of a minor's inability to provide informed consent. Ironically, under common law principles a physician rendering non-emergency service to a minor without parental consent is guilty of battery to the child and is therefore liable to the parents. However, no appellate court has established this principle in Tennessee.

Strangulation By Balloon String

DONALD E. LIGHTER, M.D.

The Injury Prevention Program of the American Academy of Pediatrics is directed toward saving children from injury and death by alerting parents to dangers in the environment. We recently encountered a case in the emergency room that demonstrates another very real danger to children.

Case Report

A healthy 9-month-old boy was seen in the emergency room in full cardiopulmonary arrest after having been found by his mother hanging in his crib by a balloon string. The child had been well when placed in his crib by an older sibling approximately three hours earlier. The family had returned from a local fair, and his older sibling tied the baby's helium-filled balloon to his crib rail. The mother stated that the child cried for a short time after being placed in the crib, but she did not check the baby until about three hours later, when she expected him to arise. At that time, she found the baby entangled in the string, blue, and lifeless. Neighbors attempted mouth-to-mouth resuscitation, and the emergency response team instituted cardiopulmonary resuscitation as soon as they arrived on the scene, about five minutes later.

When the baby arrived at the emergency room, he was pale, flaccid, and had no pupillary response or reflex activity. Though the blood was settling in the back of the trunk, resuscitation was initiated, but when after nearly 20 minutes there was no response to resuscitatory efforts, the baby was pronounced dead.

Examination revealed linear marks around the baby's neck, extending into the right axilla and onto the back of the trunk, where X-shaped linear marks were noted. The baby had facial petechiae and ecchymoses, and during resuscitation, copious amounts of material later confirmed to be gastric contents were suctioned from the trachea. Postmortem examination revealed a significant amount of aspirated gastric material in the lungs.

Discussion

The tragic outcome of this case suggests that pediatricians should be attuned to such hazards in children's environments and make every effort to prevent such events. Although the dangers of various types of crib bars have been well publicized, we need to caution parents to avoid any type of ornaments or toys on the crib that could entangle the child and cause suffocation or cerebral anoxia from vascular occlusion. Bergeson et al¹ reported a similar incident in a 7-month-old

infant who strangled on a string attached to a toy automobile.

Feldman and Sims² reviewed 233 cases of strangulation in the Seattle metropolitan area. About 28% of the cases were related to entrapment in the crib or bed clothing, while another 27% involved cords and ropes, 25 occurring when infants or toddlers became entangled in cords in or around the crib. They concluded that prevention of this class of accidents would require either increased cost of products that are better designed for safety, improved parental effort, or both.

Review of the materials in the Academy's Injury Prevention Program³ revealed almost nothing in regard to the strangulation hazard of cords and ropes. The danger of this particular type of accident was re-emphasized by Robertson,⁴ who reported a case of an 18-month-old child caught in a loose-hanging clothesline. Kindley and Todd⁵ noted a 27-month-old toddler who died when caught in his mother's waist length hair while sleeping beside her in bed. They postulated that the cause of that child's death was occlusion of jugular drainage from the brain, a likely cause of death in the child described here.

Educational materials for pediatricians and parents can warn of these dangers, and other educational techniques, such as videotape programs of potential hazards, may help ingrain safety messages in parents' minds. The current case emphasizes the need to include school-aged children in the audience for safety programs, not only for dangers to their own health, but also for the protection of younger siblings. Such programs, implemented through the school system, could make the older child an effective advocate for younger siblings, providing another source of safety vigilance in the home.

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Breast Reconstruction: A Modest Option

REUBEN A. BUENO, M.D.

Nearly 50% of the patients that I see in consultation following any type of mastectomy (simple, subcutaneous, modified, or radical) request breast reconstruction. Studies show that 20% of the patients who have undergone mastectomy are expected to have difficulty in adjusting to an external prosthesis and, consequently, opt for breast reconstruction. The term "breast reconstruction"¹ is probably an optimistic description of this pro-

cedure, since a "new breast" cannot be created by a synthetic material or autogenous tissue that approximates the original form. A reconstructed breast does not look, feel, or function like a normal breast. Only a modest approximation can be achieved.

Freeman and Wiemer² state that both referring physicians and patients have unquestionably been influenced by prolific medical writers, both professional and lay, who publish results of unusual perfection. The general assumption that the results are universally good disregards the complications that may occur. The media have of-

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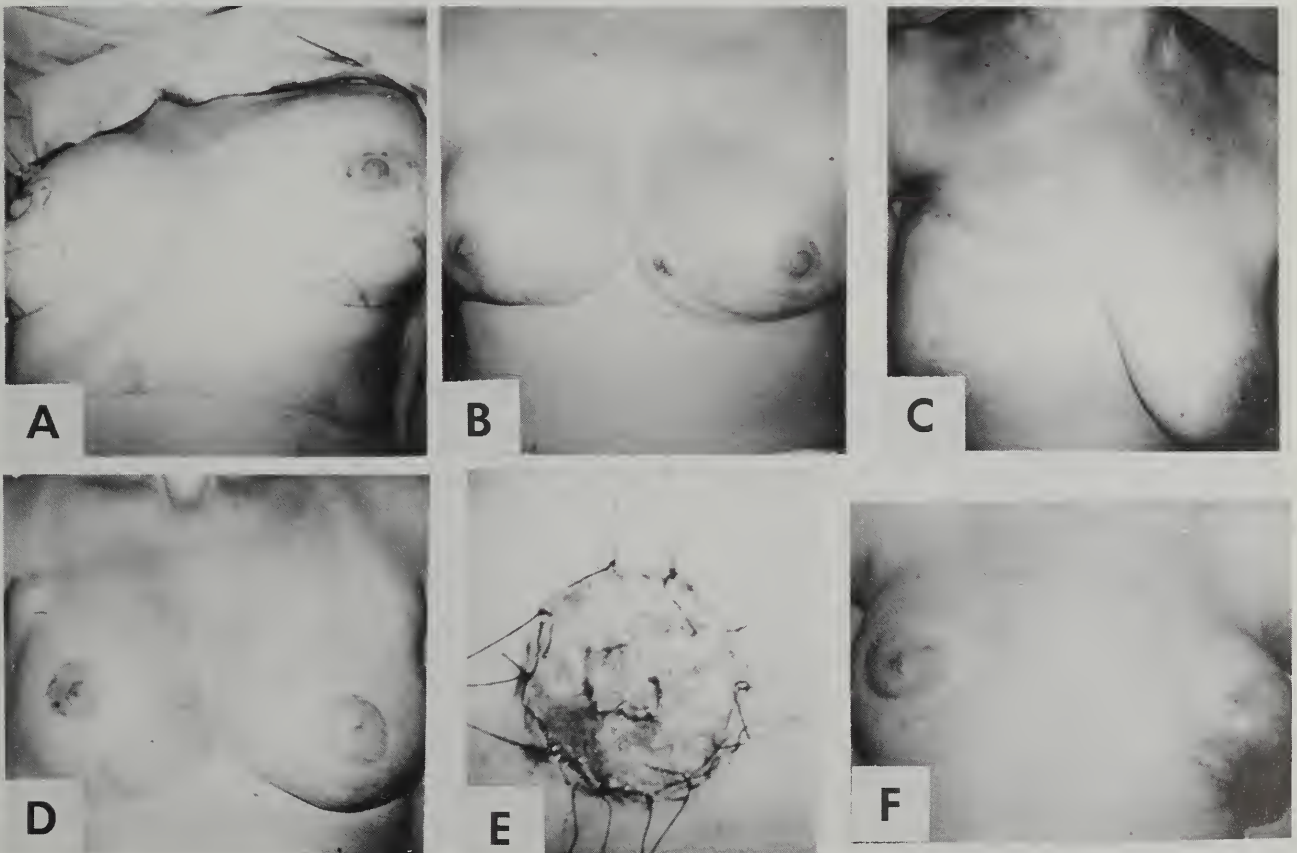


Figure 1. Reconstruction with Subcutaneous Prosthesis. (A) 45-year-old woman with florid fibrocystic disease and second degree ptosis. (B) Two years after one-stage subcutaneous mastectomy with implants and skin envelope modification. (C) 48-year-old woman, 4½ years after modified radical mastectomy. (D) Two years after subcutaneous reconstruction with implants, nipple reconstruction using skin of upper inner thigh, and mastopexy of the opposite breast. (E) Close-up view of nipple-areolar complex reconstructed with labial graft. (F) Impending exposure of mammary prosthesis and fibrous capsular contracture.

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ferred a public image of standards difficult to live up to, except in extremely carefully selected patients.

Some women envision a final result comparable to the unoperated breast; they look forward to the absence of visible scarring and a normal appearing breast. I have shared experiences of women who become disappointed after I have discussed the various aspects of breast reconstruction and possible complications. They cannot reconcile what I tell them with the glowing picture they get from articles in women's magazines and TV talk shows.

The truth of the matter is: breast reconstruction after mastectomy is a *modest alternative*. The creative and technical ability of the plastic surgeon is stimulated and tested. Patients generally require more than one operation, with additional scarring at other than the mastectomy site. The contralateral breast may require surgery to meet aesthetic expectations.

Should we, then, advise women against breast reconstruction? The answer is no. A woman with a favorable lesion and good prognosis, who understands and accepts the hazards of the operation and the limitations of the aesthetic results, should be offered the option of breast reconstruction. Time after time, patients tell me that breast

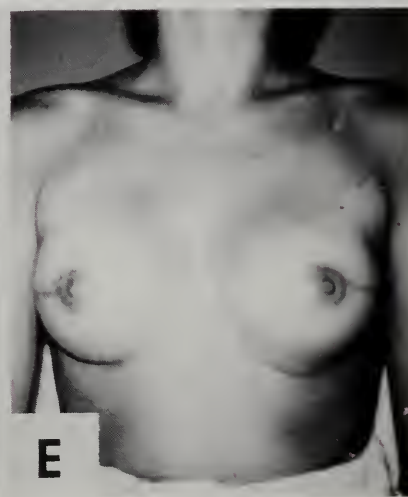
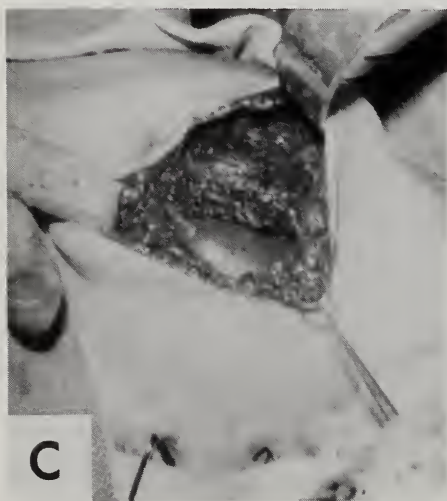
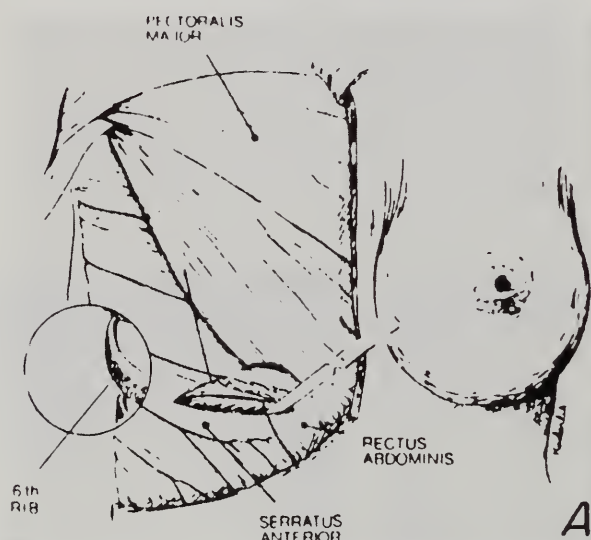


Figure 2. Submuscular Breast Reconstruction. (A) Site of incision through the serratus anterior and upper rectus fascia to the sixth rib for creation of submuscular pocket. (B) 37-year-old woman with familial history of breast cancer and multiple benign breast biopsies. (C) Placement of prosthesis beneath the submuscular pocket. (D) Six months after one-stage subcutaneous mastectomy and submuscular reconstruction. (E) Late result (15 months) after subcutaneous mastectomy and submuscular reconstruction in a 35-year-old woman. Note improved breast definition and projection with passage of time.

reconstruction contributed positively to their physical and emotional adjustment. In our society, where appearance and self-image are of such importance, breast reconstruction plays an important role in a woman's well-being and self-confidence.

Methods of Reconstruction

Subcutaneous Insertion of Mammary Prosthesis

Subcutaneous insertion of silicone or inflatable breast prosthesis following mastectomy has been around for over 20 years. While it is no longer the procedure of choice, it is still used in women with thick skin and subcutaneous tissue. In the ptotic breast (Fig. 1A), the skin envelope is reduced and the nipple repositioned (Fig. 1B). In simple mastectomy (Fig. 1C), the nipple-areolar complex is reconstructed from pigmented skin of the upper inner thigh (Fig. 1D) or labial graft (Fig. 1E). The prosthesis can be placed subcuta-

neously at the time of mastectomy or as a deferred procedure. While the initial result is good, late aesthetic results are dismal due to frequent fibrous capsular contracture, skin thinning, and subsequent exposure and extrusion of the prosthesis (Fig. 1F).

Submuscular Reconstruction

Priority is given to this procedure (Fig. 2A, B) in all types of conservative mastectomy. The prosthesis is inserted beneath the pectoralis major muscle, upper rectus fascia, and the serratus anterior muscle (Fig. 2C). It is the procedure of choice after simple or subcutaneous mastectomy, and can be carried out at the time of mastectomy or later on. Skin envelope modification for ptosis and nipple-areolar reconstruction compliment the operation.

The breast mound may initially have a poor definition and limited projection due to the force of the flat pectoralis major muscle (Fig. 2D), but

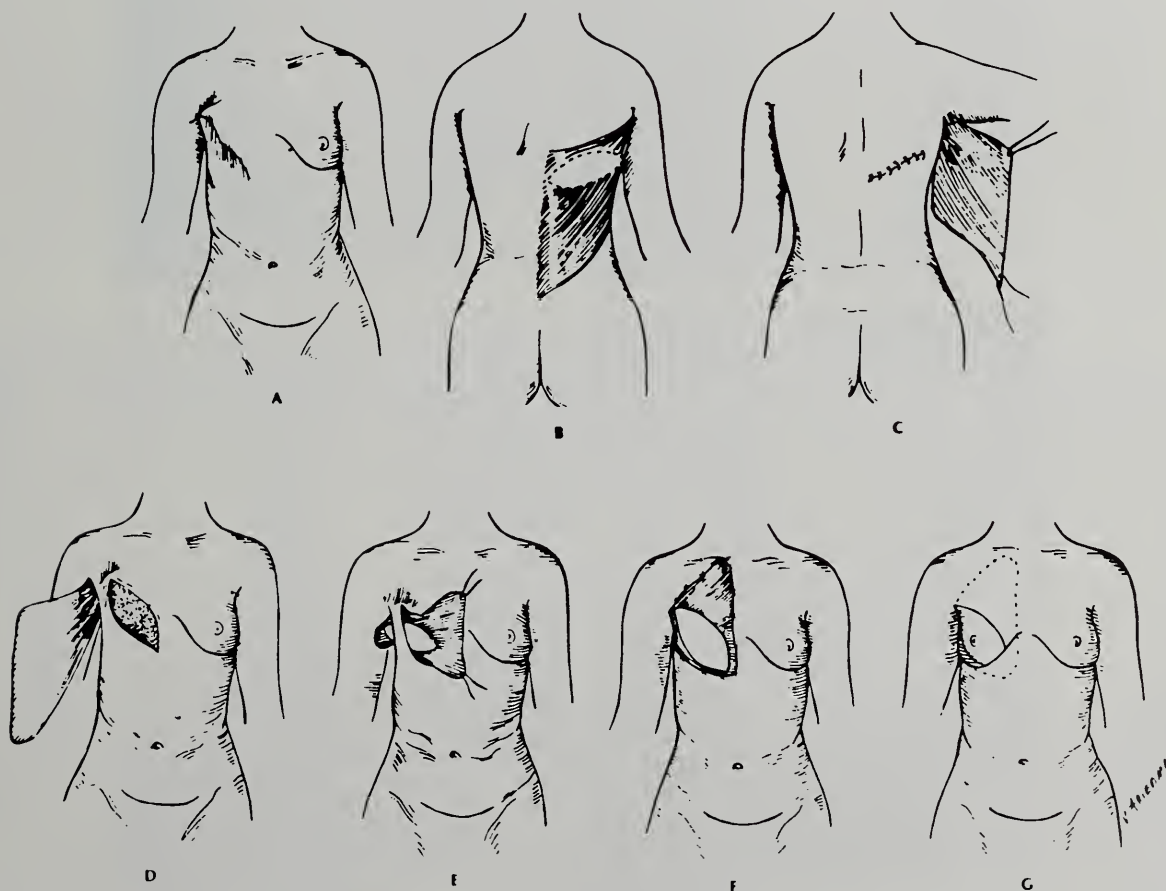


Figure 3. Latissimus Dorsi Musculocutaneous Flap Reconstruction. (A) Postmastectomy defect including missing pectoralis major muscle. (B) Skin island outlined. (C) Donor defect closed directly. (D and E) Musculocutaneous unit passed anteriorly. (F) Muscle is sutured down to simulate missing pectoralis, and implant is placed under the muscle. (G) Single-stage reconstruction of breast with latissimus dorsi musculocutaneous flap and implant.

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in three to six months, the breast projection and detail are improved as the skin and muscle stretch (Fig. 2E). Postoperative fibrous capsular contraction and exposure of mammary prosthesis are infrequent.

This procedure can also be performed on women who have had modified radical mastectomy, providing the pectoralis major muscle and adequate skin are preserved. The disadvantages of this technique are the difficulty in matching a ptotic contralateral breast, and occasional malposition or dislocation of the prosthesis.

Reconstruction with Latissimus Dorsi Musculocutaneous Flap

This technique (Fig. 3A-G) is superior in women who have had radical mastectomy or modified radical mastectomy, when the muscle and skin are deficient (Fig. 4A). The latissimus dorsi muscle and an island of overlying skin (Fig. 4B) are transferred to the anterior chest wall to create a breast mound. It is often necessary to augment the breast mound with a prosthesis placed beneath the latissimus dorsi muscle transplant. It is the primary procedure to be considered in women with tight skin and wide scar. The latissimus dorsi muscle is suitable for filling in the

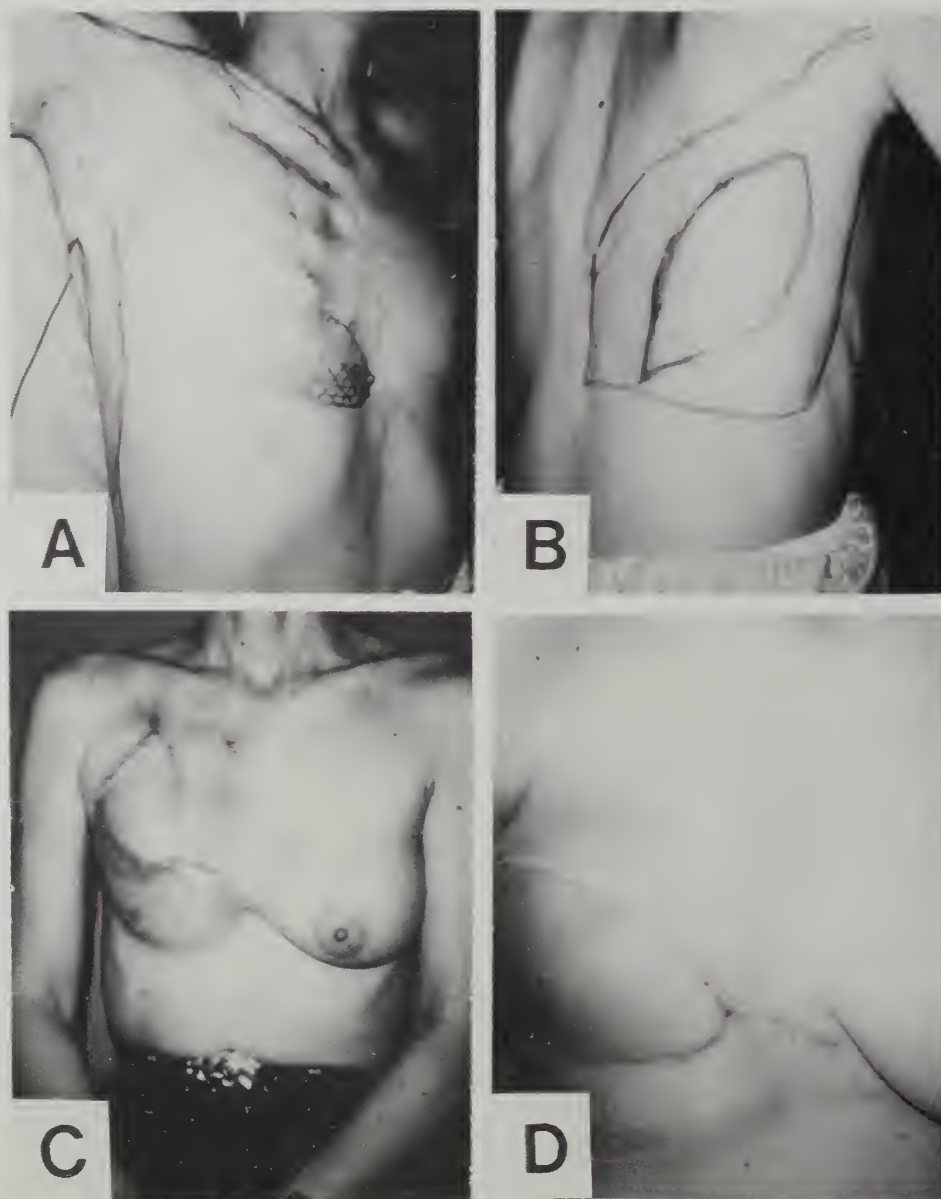


Figure 4. Latissimus Dorsi Musculocutaneous Flap Reconstruction. (A) 50-year-old woman, five years after radical mastectomy. Note the tight skin and infraclavicular hollow. (B) Design of the latissimus dorsi flap. (C) Six months after latissimus dorsi flap reconstruction with implant, and augmentation mammoplasty of the opposite breast. (D) 37-year-old woman, four months after modified radical mastectomy and immediate latissimus dorsi flap reconstruction and implant.

infraclavicular hollow and axillary defect seen with radical mastectomy (Fig. 4C, D). It is a reliable, widely used flap.

Additional scars in the back, introduction of synthetic implant, limited application when the muscle is denervated, and previous thoracotomy are the main drawbacks of this procedure.

Reconstruction with Rectus Abdominis Musculocutaneous Flap

This is the latest technique in breast reconstruction. Early in the evolution of this technique, reconstruction was done with a vertically oriented flap, but at the present time most sur-

geons prefer the transverse rectus flap (Fig. 5A, B). The rectus abdominis muscle and overlying lower abdominal skin are tunneled subcutaneously into the mastectomy site after dividing the origin of the muscle at the pubic crest (Fig. 5C).

In properly selected patients, it can create a breast mound unsurpassed in aesthetic standards by any other technique. The breast mound is created entirely with autogenous tissue, and the donor closure, which doubles as abdominoplasty, is an added bonus to the patient (Fig. 5D). When successfully executed, this technique is mutually gratifying to patient and surgeon.

Women with previous abdominal operations,

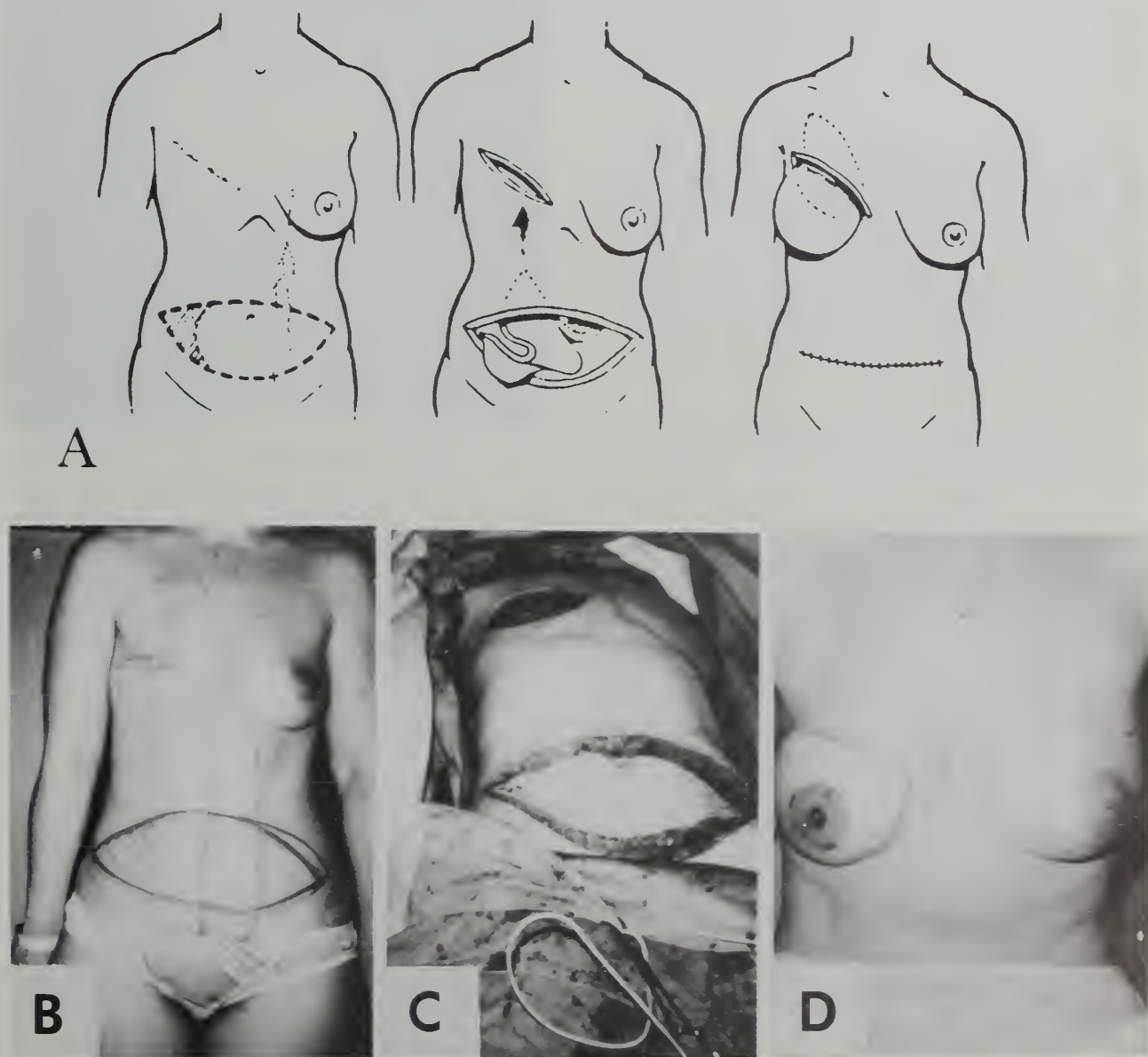


Figure 5. Rectus Abdominis Musculocutaneous Flap Reconstruction. (A) Schematic drawing of the transverse rectus abdominis technique. (B) 30-year-old woman, 18 months after modified radical mastectomy. (C) Transverse rectus flap and mastectomy wound. (D) Nine months after rectus flap reconstruction and nipple-areolar reconstruction from pigmented skin of upper inner thigh.

BREAST RECONSTRUCTION/Bueno

whose rectus muscle has been divided, and chronic smokers with circulatory impairment, are poor candidates for this procedure. Complications reported include partial flap loss, weakness in climbing stairs, and abdominal wall hernia.

Reconstruction by Soft Tissue Expander

The expansion silicone prosthesis is placed subcutaneously or beneath the muscle and partially filled with normal saline solution (Fig. 6). The inflation reservoir attached by its tubing is brought out in the subcutaneous space. Volume expansion is done at intervals of a few days by percutaneous injection of saline solution into the reservoir. When the optimum expansion is achieved and ample time has been allowed for maturation of the capsule, the expander is removed and replaced with a permanent prosthesis.

The disadvantages of this technique include multiple visits to the surgeon's office for injection of saline solution and the necessity of a second operation.

Other reconstructive procedures, such as advancement of abdominothoracic flap with implant and microvascular free flap reconstruction, are rarely used.

Contralateral Breast

The contralateral breast influences the choice of reconstructive procedure for the mastectomy

side. Some surgeons advocate preventive mastectomy for serious mastopathy (Fig. 7A, B). Invariably, except for the non-ptotic breast, surgical correction in the form of breast augmentation, reduction, or mastopexy, is desirable in order to attain aesthetic satisfaction (Fig. 8A). Of course, this will involve another operation and additional scars (Fig. 8B). Complications and patient dissatisfaction are real, even with initial success in breast reconstruction.



Figure 6. Silastic Expansion Prosthesis.

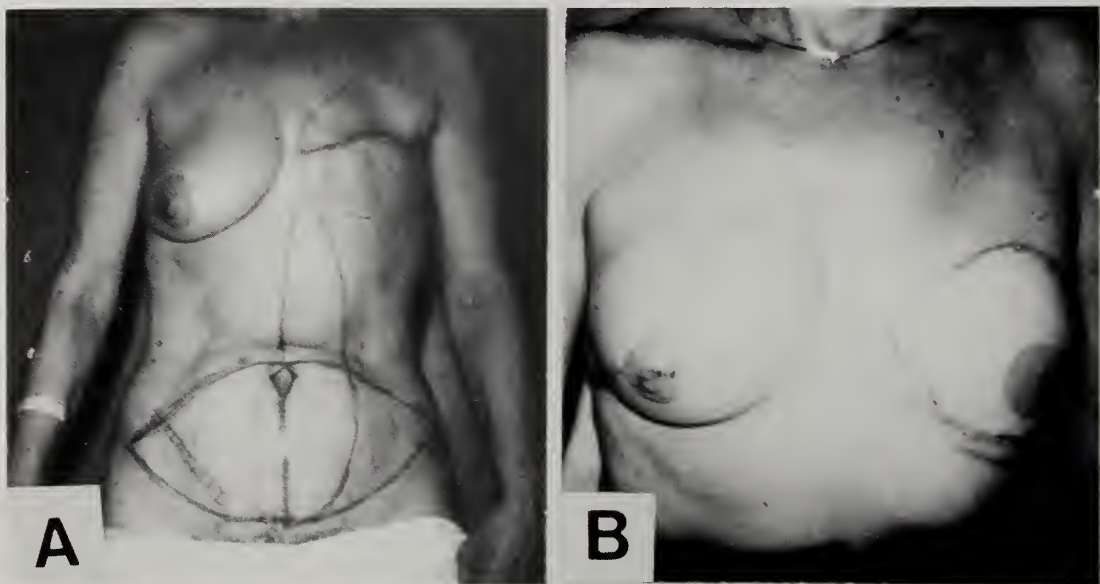


Figure 7. Rectus Abdominis Musculocutaneous Flap Reconstruction. (A) 58-year-old woman, 24 months after modified radical mastectomy and chronic cystic mastitis of opposite breast. (B) Nine months after rectus abdominis flap reconstruction and subcutaneous mastectomy and submuscular reconstruction with implants of the opposite breast.

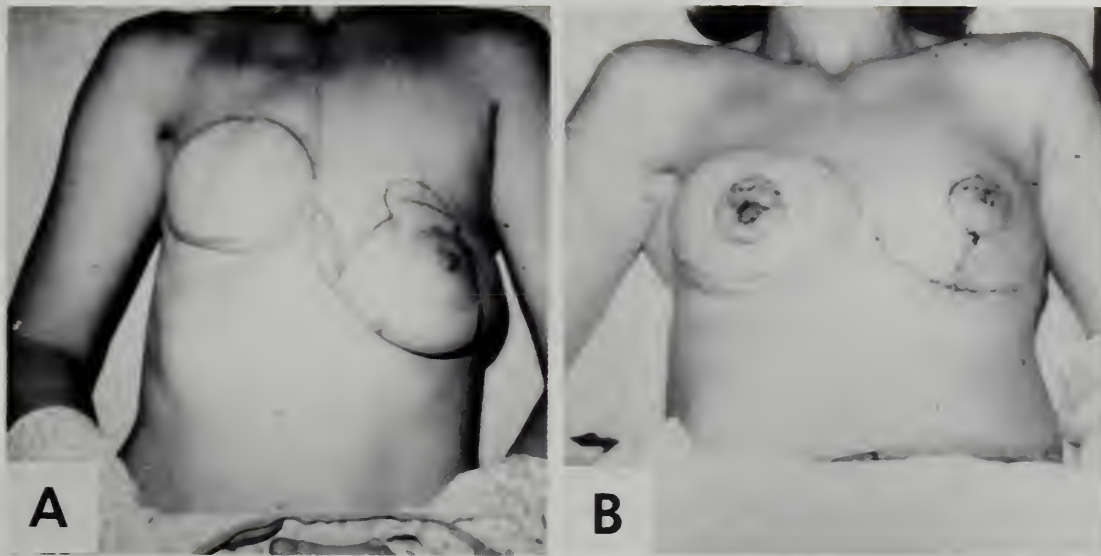


Figure 8. Contralateral Breast. (A) 33-year-old woman with inadequate breast projection after rectus flap reconstruction and hypertrophy of the opposite breast. (B) One month after the breast mound was augmented with a prosthesis and nipple reconstruction. Reduction mammoplasty of the opposite breast.

Conclusion

In all likelihood, breast reconstruction following mastectomy is here to stay. Women, buoyed by the women's liberation movement,³ assume an active role in deciding their treatment when their bodies are stricken by breast cancer. An increasing number seek breast reconstruction. Recent surgical advances and knowledge of musculocutaneous circulation have made it possible to offer them reconstruction that meets realistic goals. True appraisal of the patient as to possible untoward results and selective treatment options must prevail.

Determining factors that dictate success or failure in achieving aesthetic satisfaction include the surgeon's skill and bias, the opposite breast,

the patient's ego strength or weakness, the type of mastectomy, and qualitative skin changes from irradiation and wound healing.

Acknowledgements:

Figure 2A is reproduced with permission from Jarret.⁴

Figure 3A-G is reproduced with permission from Nahai.⁵

Figure 5A is reproduced with permission from Barton.⁶

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Carotid Endarterectomy in the Small and Medium Size Community Hospital

JAMES E. CHAPMAN, JR., M.D. and JANIS A. MORGAN, R.N.

Introduction

Carotid endarterectomy has become an accepted treatment modality for extracranial carotid arterial disease. Though in the past there has been some hesitancy about its applicability in small and medium size community hospitals, there has been a recent shift away from this position. We present a modest series of carotid endarterectomies performed in a community hospital, and maintain that under ideal circumstances these procedures can be done safely and efficiently at the primary hospital level.

Subjects and Methods

Over a 40-month period 67 operations were performed on 58 patients, seven of whom previously suffered cerebral vascular accidents, and 44 of whom experienced classic transient ischemic neurologic deficits or reversible ischemic neurologic deficits; only seven were neurologically asymptomatic. Carotid endarterectomies in conjunction with other surgical procedures have been omitted from the series.

Fifty-one of the 58 patients had other significant medical illnesses such as insulin-dependent diabetes, severe medically treated hypertension, previous myocardial infarction, angina pectoris, or other peripheral vascular arterial disease requiring treatment. The average age was 66; 28 patients were male and 30 were female. None had an evolving cerebral vascular accident and none were within two weeks of a fixed cerebral deficit.

Operative Technique

Patients did not undergo arteriography within two weeks of a significant neurologic incident

other than transient ischemic attack (TIA) or reversible ischemic neurologic deficit (RIND). All arteriograms were performed as inpatient studies using either standard arteriography or combinations of this and arterial injection digital subtraction angiography (DSA). All patients had either a cerebral computer tomographic (CT) scan or a radionuclide brain scan prior to consideration for endarterectomy.

Symptomatic patients found to have a greater than 90% stenosis on the symptomatic side were generally anticoagulated with a continuous heparin infusion after the arteriogram and operated upon as soon as possible. All but one of the procedures were performed under general endotracheal anesthesia; it was performed with regional anesthesia. Neither intra-arterial blood pressure monitoring nor intraoperative blood gas determinations were routinely used.

Prior to carotid occlusion, between 7,000 and 9,000 units of heparin were administered intravenously with 4 mg of dexamethasone (Decadron). Shunting was accomplished using a No. 8 pediatric feeding tube constructed individually at the time of surgery for each patient. Atraumatic rubber vessel loops were used for control of all the vessels and temporary metal clips were applied to collaterals. Carotid bulb injection was not routinely performed in the first half of the series, but was added to the routine in the second half. Blood pressure was kept at, or slightly above, baseline. No attempts were made at induced hypertension or hyperventilation.

Arteriotomies extended from just below the bulb for a distance of about 3 cm. Minimal handling of the bulb was emphasized. The shunts were routinely inserted distally first, and, after noting the degree of back flow, proximally, but if there was not sufficient back flow to keep the shunt flushed, then the proximal end of the shunt was inserted first. The first centimeter of the in-

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ternal and external carotid arteries and the bulb of the common carotid artery were routinely endarterectomized; distally the plaque was carefully observed and was always tacked with at least one posterior midline mattress suture of 6-0 Prolene to prevent formation of an intimal/plaque flap. The plaque was not routinely tacked proximally. Loupe magnification was occasionally used but was not routine. The closure was accomplished in all cases with continuous 6-0 Prolene suturing. The wounds were drained with a small Penrose drain for the first eight hours, after which the drain was removed; heparinization was not routinely reversed at the end of the procedure unless there was bleeding at the time of wound closure. Intraoperative arteriography was not performed. Postoperatively, aspirin and dipyridamole were routinely used. The patients spent the first postoperative night in the intensive care unit and then were allowed to return to the floor as their condition permitted.

Results

Seven of the endarterectomies were performed on seven patients who had had completed vascular accidents. In this group, one patient had a postoperative stroke on the same side as the previous CVA a number of years earlier. This patient regained all but about 60% use of the arm and all of the use of the involved leg.

Fifty-one operations were performed on 44 patients with TIAs or RINDs. All had endarterectomies performed on the ipsilateral side of the event and seven also underwent contralateral endarterectomies. Although there were no tempo-

rary or permanent strokes in this group, there were three postoperative deaths. One of these was the result of a myocardial infarction on the third postoperative day after an uneventful recovery in a patient in whom cerebral angioendotheliomatosis was found at postmortem examination. One other death resulted from postoperative malignant hypertension and a myocardial infarction; no postmortem examination was obtained. The third death resulted from an unheralded ventricular fibrillation on the 22nd postoperative day after an uncomplicated operation.

Seven neurologically asymptomatic patients underwent nine endarterectomies, four of them performed on three patients with high grade stenosis and ulcerative plaques in preparation for more complex peripheral vascular procedures. Five operations were performed on four patients for high grade unilateral stenosis or complex ulcerative plaque disease with subcritical stenosis, not in preparation for further surgery (Table 1). The average hospital stay postoperatively for patients not undergoing staged procedures or further elective surgery was 7.8 days and for staged bilateral carotid endarterectomies 12 days.

Discussion

Most of the literature regarding carotid surgery continues to be produced at the major referral centers and teaching hospitals, since few in the small and medium size community hospitals can produce a sufficiently sizeable series to aid in decision-making regarding the controversial aspects of carotid vascular surgery. In the proper situation however, patients with carotid arterial

TABLE 1
SUMMARY OF DATA ON 58 ENDARTERECTOMIZED PATIENTS

Preoperative Neurologic Status	No. of Operations	No. of Patients	Permanent and Temporary Postoperative Neurologic Deficits	Postoperative Deaths at 30 Days
Previous cerebral vascular accident	7	7	1	0
Transient ischemic attack or reversible ischemic neurologic deficit	51	44	0	3
Asymptomatic	9	7	0	0
TOTALS	67	58	1	3

CAROTID ENDARTERECTOMY/Chapman

disease can be successfully treated with acceptable expectations of recovery in such a community hospital.¹

The occurrence of only one postoperative permanent neurologic event in our 67 endarterectomies supports the above thesis, though it neither lends to nor takes away support from the ongoing controversy regarding the use of indwelling shunts, as this subject was not addressed here.^{2,3} A broad range of postoperative transient and permanent deficits ranging from 0% to 15% is reported in the literature.⁴⁻⁶ Though the three deaths in this series represent an overall operative mortality of 4.5%, the patient with the unsuspected diffuse cerebral angioendotheliomatosis, which contributed to his unexpected death, probably should be deleted from these figures. This patient was reported previously.⁷ The second patient suffered spontaneous ventricular fibrillation three weeks postoperatively and otherwise had not suffered ill effects from the surgery. Including this patient, and the patient who suffered malignant hypertension and a myocardial infarction in the immediate postoperative period,

would produce an operative mortality of 3%, which is within the range of many other reported series, and given the high risk nature of the population reported herein, is comparable.^{4,8}

In summary, our experience suggests that in the small and medium size hospital setting with proper medical and surgical facilities and with adequately trained personnel, carotid endarterectomy can be safely offered to appropriate patients with a good expectation for overall good results. Shunting routinely was associated with low incidence of neurologic deficits.

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APRIL 1985						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
			TMA 150TH ANNUAL MEETING Hyatt Regency Hotel—Memphis			
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	NOTES			

The Year in Review and a Look Ahead

FRANK J. JIRKA, JR., M.D.
President
American Medical Association

Like every other President who has faced this moment, I have looked forward to it with both joy and sadness. It marks the end and the beginning of eras in my life. It means I shall be able to return to giving the greater share of my time to my medical practice to which I have devoted many years. Although I intend to remain involved in the activities of the AMA, because I believe in them, it means the end of a year as your President of our Association—a year that has been the best and the shortest, the most rewarding and the most exhausting, the most enjoyable and the most responsible I have ever lived.

I am grateful to you, the members of this House, for having given me the privilege of being the principal spokesman not only for this Association, but for the medical profession of the nation. I am equally grateful to the thousands of men and women in county societies, state associations, specialty societies, and the many other organizations of physicians who have made my task of representing the AMA such a pleasure, on both social and business occasions.

One important thing about this past year is that during it, I sincerely believe I kept the pledge I made when I announced for the office of President, and that I repeated when I was inaugurated. It was my pledge to spend as much of my time as possible with physicians at the grassroots of this nation. I have met with large and small county societies, with specialty societies, and with associations of physicians of foreign extraction, in medical schools, at medical centers, and at hospitals. I have learned one thing—that the attitudes, the goals, the aspirations of physicians in

the smallest towns are no different from those of physicians in the largest cities. We share, from coast to coast and throughout all of the characteristics of our diverse profession, a genuine concern that the profession be preserved so that through us high quality medical and health care can be preserved for all of the people in our nation. Wherever we work—in whatever kind of practice organization—we are, first and foremost, physicians, and as such we are the principal advocates for our patients.

During the past year I have seen a number of examples of the profession's desire, and the profession's ability, to carry out its role as the patient's advocate—and do it through concerted effort.

Perhaps the most dramatic example was the victory on behalf of our patients over the proposal of mandated assignment for Medicare inpatient care. As written, the proposal carried penalties that could have deprived physicians of their hospital privileges if they wouldn't go along with the government's decrees. That would have done serious harm not only to Medicare patients, but to all patients who would have lost the services of physicians who could no longer practice in certain hospitals. Our AMA called on its membership, the grassroots, to help explain to Congress the possible consequences of the bill. One hundred and twenty-five physicians flew to Washington and made personal calls on their congressmen. They came from 39 state medical associations and eight specialty societies. They were successful. The proposal failed as it should have. However, we have to be eternally vigilant so it is not resurrected in another form.

A second example was the Transplantation Act. As originally written it included a provision giving the Secretary of Health and Human Serv-

Presented at the Annual Meeting of the American Medical Association, Chicago, June 17, 1984.

ices authority to say which Medicare patients would be entitled to any medical procedures—and in which hospitals the procedures could be done. That would have opened the door to nothing less than bureaucratic rationing of medical care. The objectionable provisions were removed from a parallel bill because of the educational and persuasive efforts of our Association.

Another example of our efforts was the striking down by a federal judge in May of the government's proposed "Baby Doe" regulations. That would have constituted another serious intrusion by government into medical care and into the most serious relationships between physicians, patients, and their families.

Finally, your response to the voluntary fee freeze has been most gratifying and appreciated. Approximately 73% of the physicians recently interviewed reported that they will comply. You are to be commended for exercising your leadership for to date 38 states, 54 counties, and 11 specialty societies have also called on their members to freeze fees. You have, as true leaders, set the example for other segments of the medical and health field. To those segments who have a much greater financial impact than we physicians, I challenge them to follow suit.

These are only a smattering of events that the grassroots and our AMA participated in over the last year. As we look to the immediate future, I suspect that our activities in the courts, in the halls of Congress, and within the health care field will only intensify. In the quest for cost effectiveness—for more economy, more efficiency in the medical and health care field—the ideas we have seen proposed so far, I dare to predict, are nothing compared with the ones we will see in the future. Our profession and the whole health care field is and will continue to be in a period of upheaval.

Physicians are competing more than ever before with other physicians. Physicians are competing with hospitals. Hospitals are competing with other hospitals and with newly developed medical and health care centers. Health care allies and limited license practitioners are seeking and gaining more opportunities for independent practice.

We are learning to live with DRGs for Medicare inpatients. We face the likelihood of pressures for similar prospective pricing systems for all hospital patients and perhaps for all physician services. We are changing our practice organiza-

tions and systems. We are either competing with or joining an alphabet of new concepts in care—PPOs, EPOs, IPAs, and HMOs.

We are finding it necessary to form groups and to negotiate with insurance carriers, the government, private employers, and perhaps individual patients regarding the cost of care. We are building and joining a wide variety of new kinds of satellite and freestanding centers.

What is important is that none of those changes are being made primarily to give better care. They are being forced by considerations of cost, of economy, of efficiency, of productivity. Circumstances are trying very hard to turn medical care into a business—and physicians into businessmen.

We are going to have a harder struggle than ever before to protect the quality of medical and health care, and to protect the access of the nation's people to it. Yes, the challenges to our freedom and our ability to care for our patients are not going away. Indeed, they will be growing.

That's why it has never been more important that it is right now for physicians to belong to this organization—and to share with it their wisdom, their judgment, and—yes—their resources to keep us going. That's a story every one of us has to tell every time we have a chance to talk to our colleagues, formally or informally.

However, there is one important thing for us to remember. The primary responsibility is not theirs—to join and support this organization. The primary responsibility is ours—to make the AMA so responsive to the needs of all physicians—and so clearly effective in protecting the rights and freedom of physicians and their patients that physicians will be attracted to us—and want to support what we are doing.

We must continue to support and encourage the growth in membership of the students and residents. We need their input for they are the future of our organization and our profession.

It's our job to make physicians want to join and need to join the AMA to support our programs. That's why our peer-to-peer effort, The Physician Outreach Program, must be a success and needs your full participation. That means we must be the Association not of one kind or a few kinds of physicians, but of all physicians.

One very important group is women physicians. Women now constitute 13% of all physicians. They are 29% of all medical students and 24% of residents. Just over one-fourth of women

physicians belong to the AMA. The proportion has remained the same for the last ten years during which time the number of women physicians has more than doubled. But the proportion has remained static and is lower than the proportion of men who have joined. We must maximize our efforts to recruit more women physicians into the membership of our organization.

Another group that needs our more positive attention is foreign medical graduates. At the present time 21% of the physicians in this country were educated outside the United States. This House has considered many different concepts with regard to FMGs and will continue to do so from the standpoint of protecting them, protecting patients, and protecting the integrity of both the individuals and the profession involved.

But with respect to foreign-trained physicians who are here now—who are legitimate, who are practicing medicine in this country, and who are our colleagues—we should seek their support for our mutual benefit. They need the advocacy and strength of the AMA just as all other physicians do. And we will need their membership and support just as we need it from all other physicians. With this in mind your Board of Trustees has established an ad hoc committee on FMGs and has appointed its members.

There is no room in our profession for fragmentation—for solo practitioner against HMO member, or fee-for-service physician against employed physician—not as far as the freedom and quality of medical practice are concerned.

To achieve the ends of patient protection and the highest possible quality of patient care, and to avoid interference by government or any other power that would limit or restrict our ability to care for those who need us, we must work together as one. That can best be done and I think can only be done through the one, all-encom-

passing association of physicians: the American Medical Association.

If it should fail in its goals because of a lack of support from the profession it represents, then every member of that profession loses. So let's make one of our top priorities membership recruitment.

As medicine continues to improve, as physicians are able to do more and more for patients, the amount of time we spend with patients has, for the most part, continually shrank until it has almost disappeared. Today we have all of the science in the world. We have fantastic results. What we don't have is the same regard in which our predecessors were held in the hearts and minds of the people we serve. Instead of being thought of primarily as "My Doctor," today we are more likely to be thought of as the unseen captain of a team of equals.

Instead of taking care of patients and making people well, we are more likely to be seen as one of the people delivering health care services. The former was personal and human. The latter is impersonal and mechanical. As physicians, let us return to assuming our proper role as the primary person in the total course of care. Let it be visible and tangible, knowledgeable and caring, concerned and compassionate, at the side of the patient who wants and needs our counsel.

Let us always remember that we are physicians first and as such are members of an honored and honorable profession. We must constantly strive to maintain the highest degree of professionalism and must assure the public that our colleagues will do likewise.

So with compassion and concern let us do what we do best—something that is too often overlooked and too seldom discussed. It is the foundation of everything we do. It is practicing the art of medicine.

Quality of Care

In the continuing national debate on proposed changes in the delivery or financing of health services, the recommendations and positions of the medical profession are based heavily—as they should be—on the perceived impact of such changes on the quality of care provided. Yet the difficulties of adequately defining and accurately measuring “quality” of medical care are universally acknowledged. Efforts to do both more proficiently are diverse and ongoing.

Of particular concern to the Council on Medical Service is what it believes to be a perception by some segments of the public that, when physicians use the term “quality,” it is synonymous with increased use of and/or more expensive facilities, services and equipment (and, inferentially, with a type of care more remunerative to the medical and other health professions). This perception can act to “discredit” in advance many of the sincere concerns expressed by physicians and other health practitioners as to the predicted impact of specific proposals on the “quality” of care.

While this perception of quality by the public is erroneous, the Council believes that it derives to some extent from the profession’s own early efforts to define and measure quality. These efforts focused heavily on the *structure* of care (the physical and organizational settings and equipment as well as the qualifications and credentials of practitioners) and the *process* of care (the type and extent of practitioners’ activities and interactions with patients). At least initially, such assessment attempts often embodied untested assumptions about the relationships between specific elements of structure and process—certain types of resources, practitioner qualifications, services and patient-practitioner interactions—and the quality of care provided. Subsequent experience has helped to document or refute such relationships—particularly as attempts to assess quality have moved away from isolated examination of structure and process and toward attempting to

identify those elements of each which are consistently associated with favorable patient outcomes, when other variables which could also affect outcome (patient age, sex, environment, attitude toward illness, prior health care experience, and type or extent of disease—i.e., self-limiting or chronic/degenerative conditions, etc.) are adequately measured and assessed. As does no other criterion, patient outcome directly reflects the degree of effectiveness with which health professionals combine their own skill and compassion with the use of technology for the patient’s benefit. This increased attention to “the bottom line” represents a significant improvement in quality assessment methodology, in the Council’s view, but carries with it its own conceptual and procedural problems, perhaps the most important being the need for a more encompassing and meaningful definition of “favorable outcome.” As an obvious example, simplistic concepts of “favorable outcome” are of limited value in assessing the quality of care received by a terminal cancer patient.

In addition to biological changes in disease, other outcome criteria which may provide meaningful indications of the quality of care provided to any given patient include the patient’s comfort and freedom from pain, ability for self-care, physical function and mobility, emotional and intellectual performance, and self-perception of health. Patient satisfaction and compliance with medical care, health knowledge, and the ability to function satisfactorily in family, social, and/or employment role functions are also benchmarks. Inherent in this broader perspective of outcome criteria is the fact that, while the “best” or most appropriate care may cost more at times, at other times it may actually cost less in achieving the desired outcome.

Different outcome criteria or combinations of criteria will obviously be more relevant for different individual patients—even those with ostensibly similar conditions, since all patients do not share the same health priorities. Accordingly, the problems of constructing such outcome scales, as well as individualizing their application over large population groups, are formidable. Efforts to o-

This is AMA Council on Medical Service Report I, submitted to the House of Delegates at its Annual Meeting in June 1984. Past House Action: A-79:85-92.

vercome such problems are ongoing, have received the support of the House of Delegates in previous policy statements, and in the Council's opinion will ultimately prove successful. In the interim, however, the Council believes it is critically important that there be broader understanding among the public and in the profession that care of high quality does not necessarily mean more frequent or more costly services (and in fact is sometimes synonymous with less frequency and/or cost); and that what physicians and their patients are seeking to preserve are the flexibility and freedom to select from the recognized treatment modalities available those which are most conducive to maintaining or improving quality and/or duration of life, as measured by some or all of the above outcome criteria.

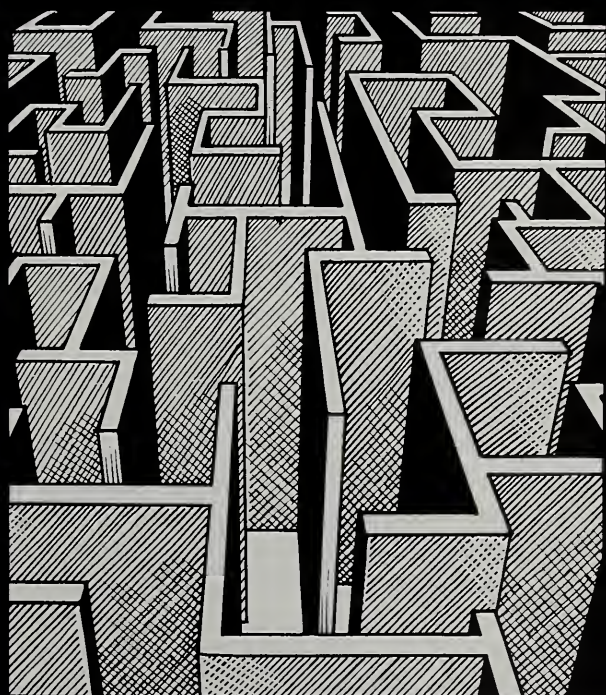
To assist in achieving such public understanding, the Council on Medical Service recommends: (1) That the Association conceptually define care

of high quality as being that which consistently contributes to improvement or maintenance of the quality and/or duration of life. (2) That the Association utilize all appropriate opportunities and channels to inform the public that it is *this* concept and definition of quality that the profession's efforts are directed toward preserving. (3) That the Association reaffirm its support for efforts to develop and use broader and more meaningful patient outcome criteria in assessing the quality of care.

To the extent that the public understands and values this concept of quality, the Council believes that the positions and recommendations of the profession in this area will enjoy more widespread support.

This report obviously represents only an initial discussion of the complexities of defining and assessing quality. The Council will continue to study this subject, will submit further reports, and actively solicits comment from the federation.

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Teenage Pregnancy Trends for Tennessee

FREDIA WADLEY, M.D., MSHPA; PAULA TAYLOR, M.S.; and POLLY SCANION, PH.D.

Teenage pregnancy is gaining a great deal of public attention today because it is producing compelling health, socioeconomic, and educational problems for the teenage mothers and their infants. *Tomorrow's Children* made the following statements as it outlined the many issues relating to teenage pregnancies:

- Teenage pregnancy is associated with "a greater incidence of premature and low birth-weight babies, mental retardation, infant and maternal mortality, and physical or emotional neglect and abuse.

- "Pregnancy is the most common cause of teenage dropouts. Eight of 10 girls who become mothers at age 17 or younger never finish high school. These circumstances may result in poor social or economic environment for the child."¹

Teenage Childbearing, Resident Data, Tennessee, 1950-1982, produced by the State Center for Health Statistics of the Tennessee Department of Health and Environment, allows us to look at 33 years of data and note the trends that developed. This article contains 1983 data which update those contained in this publication.

As pointed out by the Center for Health Statistics, in an effort to analyze the data relative to teenage pregnancy, one must consider the following: (1) increased contraceptive utilization during the 1960s; (2) passage of the Tennessee Family Planning Act of 1971 legalizing the distribution of contraceptives to minors; (3) abortion became legally available in Tennessee in 1973.^{2(p3)}

With legalized abortion, one must realize that the figure for total pregnancies is derived by adding live births, reported fetal deaths and reported abortions. Although underreporting has been a problem for the latter two, it is estimated that in

1974 only 47.8% of abortions were reported, while in 1982 the figure had increased to 90.9%.^{2(p11)}

The following statements are just a few of the pertinent points of this 34-year data picture on teenage childbearing:

1. The Tennessee teenage birthrate per 1,000 female population exceeds the comparable United States rate for each year since 1950.

2. *Data for the 10-14 Age Group*

- The birthrate (births per 1,000 age-specific female population) for both 1950 and 1983 was 1.6, having peaked in 1973 and 1974 at 2.4. Since 1974, it has decreased steadily to 1.6.

- In 1950 there were 233 live births to girls aged 10 to 14 years; in 1983 there were 272. This represents an increase of 16.7% but the population in this age group increased 23.5%.

- These live births accounted for 0.3% of Tennessee's total births in 1950 and 0.4% in 1983.

- The number (and rate) of reported induced abortions in 1974 was 137 (rate 0.7), and in 1983 it was 229 (rate 1.3). This includes abortions performed on Tennessee residents in other states. These have been reported and included in Tennessee's figures for abortions only since 1982.

- The percent of illegitimate births in this group was 56.2% in 1950 and 91.5% in 1983.

- Total pregnancies were 606 (rate 3.1) in 1974 and 506 (rate 2.9) in 1983.

3. *Data for the 15-19 Age Group*

- The birthrate in 1951 peaked at 103.4 and has decreased steadily to 57.3 in 1983.

- Live births were 13,752 in 1950 and 11,557 in 1983.

- Live births accounted for 17.1% of Tennessee births in 1950 and 17.7% in 1983, representing an increase of 3.5%; however, the population

From the Tennessee Department of Health and Environment, Nashville.

in this age group increased 47.8% from 1950 to 1983.

- The number (and rate) of induced abortions in 1974 was 2,394 (rate 12.1) and in 1983 was 5,039 (rate 25.0).

- The percent of illegitimate births in this group was 14.3% in 1950 and 47.4% in 1983.

- Total pregnancies were 18,538 (rate 93.6) in 1974 and 16,685 (rate 82.7) in 1983.

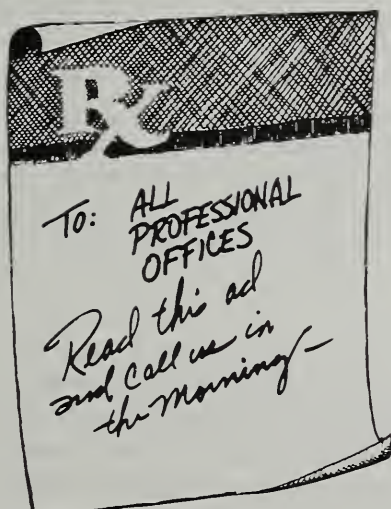
One may look at these data and feel comforted that the birth rate and pregnancy rate have declined since 1974 in teenagers. Unfortunately, over 17,000 teenage pregnancies per year in Tennessee produce tremendous health and social

problems for this generation and their children.

Good prenatal care can help produce a favorable pregnancy outcome for these teenage mothers; however, health complications represent only a fraction of this problem. Until we find a way to prevent unwanted teenage pregnancies, they will continue to be one of the major health and social problems of Tennessee.

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EKG of the Month

W. BARTON CAMPBELL, M.D.

A 63-year-old woman began to have episodes of exertional substernal discomfort radiating to both shoulders and relieved by rest. Following a severe episode she was hospitalized and found to have severe bradycardia, heart block, and hypotension. A temporary transvenous electrode was inserted into the apex of the right ventricle and connected to a pulse generator (pacemaker) programmed in the VVI mode (i.e., pacing the ventricle and inhibited by ventricular depolarization). The pacemaker functioned satisfactorily and the hypotension was corrected. Creatine phosphokinase rose above 3,600 on the second hospital day. Five days later she was transferred to St. Thomas Hospital, in stable condition, where an admission electrocardiogram was obtained (Fig. 1).

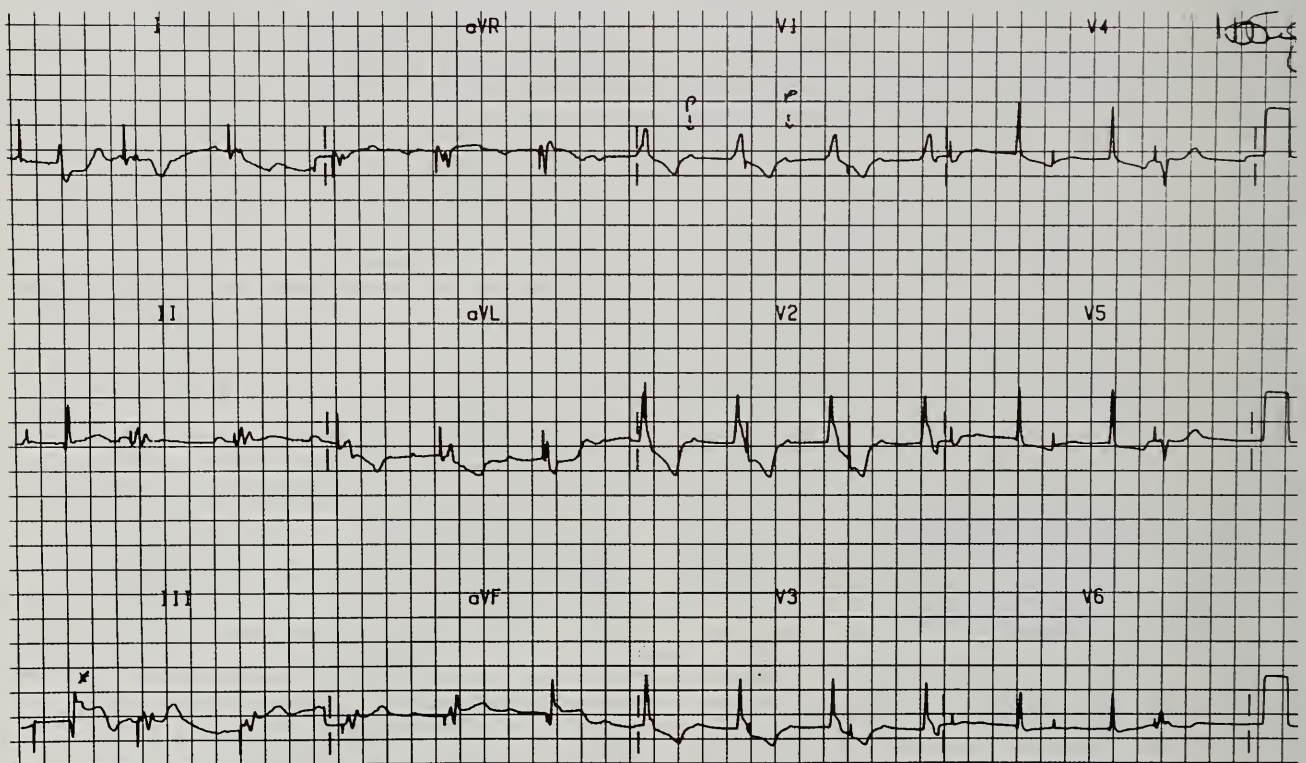


Figure 1

Discussion

This electrocardiogram shows pacing spikes which are easily seen in all leads with a spike-to-spike interval of 0.85 seconds. This corresponds to a pacemaker rate of 71/min. The spikes march through the QRS complex, and beginning with the eighth pacing spike from the left begin to emerge from the QRS complex. (The three EKG channels are recorded simultaneously.) While inside ST segments and T waves the spike does not

capture the ventricle because the ventricle is refractory during this period. Only after the ventricle repolarizes (after the peak of the T wave) can the pacemaker capture (as exemplified by the final QRS complex on the tracing).

Unpaced beats are present on the tracing. They are the first QRS complex in simultaneous leads I, II and III and all of the QRS complexes in the precordial leads (V₁ through V₆) until the final paced beat on the tracing.

The pacing spikes in this tracing are not being appropriately inhibited by the QRS complex. The atrial rate is slightly faster than the pulse generator rate (an interval of 0.76 seconds versus an

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202.

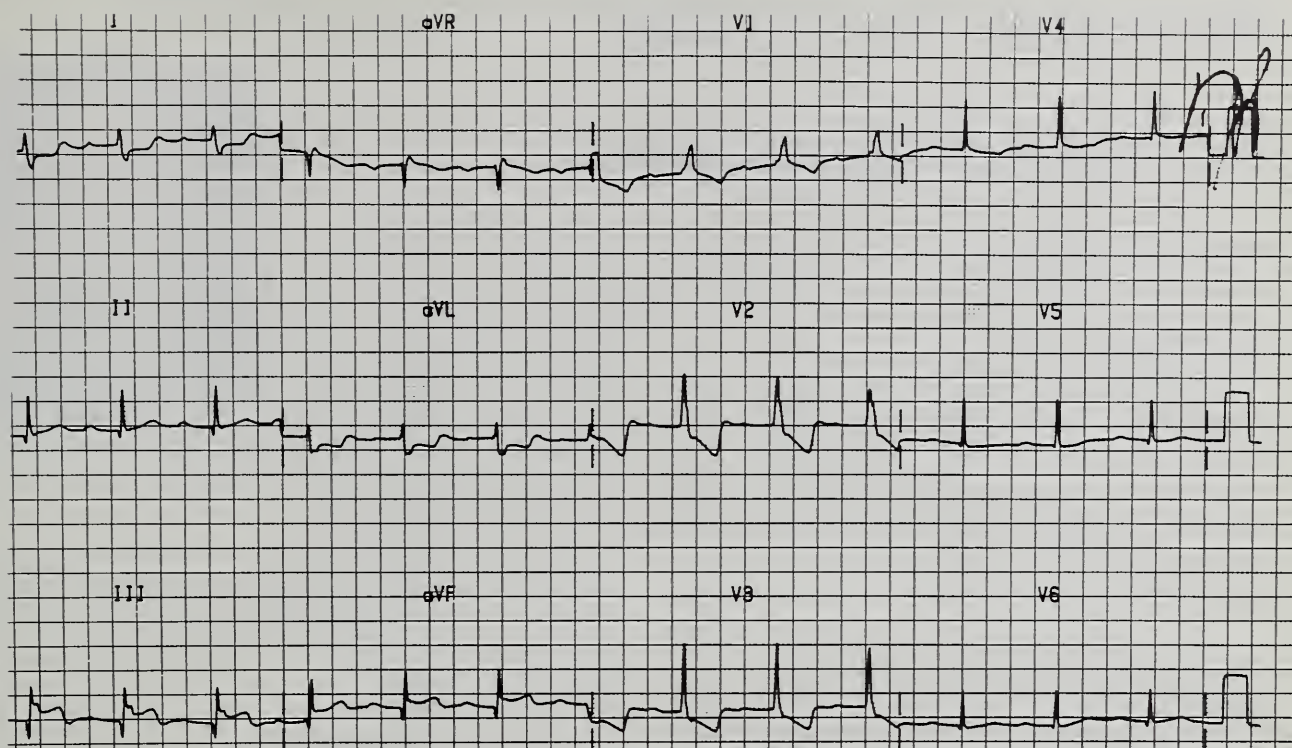


Figure 2

interval of 0.85 seconds) and P waves are present throughout the tracing and capture the ventricle with an extremely long PR interval (0.38 seconds) unless a pacing spike intervenes in this relationship.

The third beat in simultaneous leads aVR, aVL, and aVF is significantly different from the preceding two beats in this lead. (Lead changes are marked on the tracing by the line bracketing the tracing.) This is a fusion beat resulting from simultaneous capture of the ventricle by the atrial impulse and the pacemaker. Ventricular fusion, resulting from impulses of different origin stimulating the ventricle simultaneously, has a QRS morphology intermediate between the contours of a beat produced by each impulse.

In aVF the fusion beat contains a significant (0.04 seconds) Q wave with ST segment elevation that is not present in the paced beat. The pacing spike deforms the first portion of this QRS complex (which is significantly different in morphology from the preceding two beats). The 40 msec Q wave in aVF with accompanying ST segment elevation is diagnostic of evolving inferior wall myocardial infarction and is consistent with the Q waves and ST elevation seen in standard lead III.

The unpaced beats have significant intraventricular conduction delay, with a total duration of

0.12 seconds. The late forces are rightward, inscribing the S wave seen in the unpaced beat in standard lead I. They are also prominently anterior, inscribing the prominent R wave seen in V₁. These rightward anterior forces with QRS widening are characteristic of right bundle branch block. In a subsequent tracing obtained a few days later (Fig. 2) first degree block remains, with a shorter PR interval of 0.28 seconds. In this tracing the pacemaker has been discontinued. Q waves in II, III, and aVF with ST segment elevation in these leads are pathognomonic of inferior infarction; right bundle branch block persists.

Although the pacemaker seen in Fig. 1 was programmed to function in the VVI mode, failure to sense the QRS complex results in fixed rate (VVO) pacing. Failure to sense depolarization of the ventricle is likely due to myocardial necrosis resulting in an electrically inert region in juxtaposition to the electrode. Ventricular capture may still be effected under these circumstances if the pulse generator output is of adequate strength.

CONCLUSION: (1) VVI pacemaker functioning in VVO mode; (2) first degree AV block; (3) inferior myocardial infarction, evolving; (4) right bundle branch block.

The Personal Appearance

J. KELLEY AVERY, M.D.

Case Report

A 31-year-old primagravida was first seen by her obstetrician in December and found to be 16 to 18 weeks pregnant. The prenatal course was completely uneventful. Blood pressure ranged between 110-120/70-80 mm Hg. Urines were consistently negative for protein, and no edema was present. At 39 weeks, the blood pressure was 140/100 and a trace of albumin was present. Ultrasound showed the fetus in a breech position.

Three days after this last visit, the patient went to the emergency room (ER) of the hospital complaining of shortness of breath and muscle spasms in the neck and back. When her blood pressure was found to be 210/110, her physician was notified; he gave a phone order for hydroxyzine (Vistaril), 50 mg intramuscularly. Five minutes after the injection, the blood pressure was found to be 180/110, but five minutes later it was 210/130. Voided urine tested by dip stick was read as negative for albumin. Two hours later, while still under observation in the ER, the patient continued to complain of back pain, and a phone order was obtained from her physician to give her 8 mg of morphine sulfate and to discharge her from the ER. After the patient admitted to "feeling some better," she expressed some reluctance to going home. Reassured by the ER personnel, she left the ER and was instructed to call if further problems developed.

Two hours later she was returned to the ER in a comatose state, following what was described as a typical grand mal seizure. After arrival at the hospital, a second seizure occurred. Her obstetrician was called and on arrival he noted 1+ edema and 3+ albumin in the urine. With the diagnosis of eclampsia, an emergency cesarean section was scheduled, and an 8 lb 2 oz baby was delivered with Apgar scores of 6 and 8.

Her postoperative course was complicated by disseminated intravascular coagulation, with

blood loss, partial renal shutdown requiring dialysis, a pulmonary embolus confirmed by lung scans, and protracted coma. The patient awakened 12 days after her section, and after a prolonged hospital stay was discharged with no apparent residual damage.

A suit was filed against the physician charging negligence for failure to attend his patient in the ER and for treating her without benefit of his own personal examination and evaluation. A large cash settlement was paid.

Loss Prevention Comments

Without question aggressive and heroic treatment by the attending physician saved the life of this patient and her baby, but unfortunately this was not enough to prevent a successful lawsuit! The patient's attorney was able to find all the expert testimony he needed to prove a deviation from an acceptable standard of care. In retrospect, the doctor could be criticized for not interpreting the visit at 39 weeks, which revealed a blood pressure of 140/110 and a trace of albumin, as a sign of toxemia requiring bedrest and daily office visits or hospitalization. This was not *the* legal problem. Even the treatment given in the ER and the period of observation, although suspect, was not *the* underlying legal problem. We would agree that sending a patient like this home from the ER was a gross clinical error. Even this was not *the* legal problem.

The primary deviation from an acceptable standard of care in this case was the failure of the attending physician to personally come to the ER, examine his patient, and, with the benefit of his own personal evaluation, institute treatment. This behavior on the part of the physician could in no way be defended, and settlement was required.

The law does not require us always to be right, but it does require us always to be careful and reasonable. When we fail to personally attend outpatients in the ER and a catastrophe follows, we will find that defending ourselves against the charge of malpractice will be extremely difficult, if not impossible.

Dr. Avery is the medical director of State Volunteer Mutual Insurance Company.



THOMAS K. BALLARD

The Good and the Bad Guys

In December 1983, the Congress defeated a bill that tied a mandatory acceptance of assignment of all patients in the Medicare group to each doctor's hospital privileges. The Deficit Reduction Act of 1984 has taken another track, and on July 1, 1984, the federal government divided the physicians in the United States who treat Medicare patients into two categories: the participating physician who accepts categorically the fees set by the federal government for the treatment of Medicare patients, and the nonparticipating physician who does not accept all assignments. The nonparticipating physician feels that his contract is not with the federal government, but with the patients he has treated down through the years. This physician has taken into consideration all individual cases, their ability to pay, or their inability to pay, and has given due consideration to their financial condition in accepting or not accepting assignments.

The participating physicians, according to our federal government, are looked upon as the "Good Guys." They will be able to increase their fees periodically to Medicare patients in small increments from July 1, 1984 to October 1, 1985 and at the end of that period their profiles will be raised accordingly. During this 15-month period, however, the participating physicians will receive just exactly what the federal government wants us to have in payment for the treatment of our Medicare patients. The participating physicians will have their names inscribed in a book to be published by the Department of Health and Human Services at a cost which is unknown at this time. This book will be furnished to all Social Security Offices, to the Association of Retired Persons, and to all Medicare recipients upon request. In addition, each participating physician will be furnished an emblem to be placed in his office showing that he is a participating physician in the Medicare program according to their definition.

The nonparticipating physicians are the "Bad Guys." They desire to take each Medicare patient on an individual basis, and to accept assignment on an individual basis. These physicians will receive sanctions against them if they raise Medicare fees between July 1, 1984 and October 1, 1985 and will be liable to fine if the Department of Health and Human Services desires to prosecute.

Which are you—a Good Guy or a Bad Guy? I feel that each individual physician should carefully make his decision as to which way he wishes to go. It is my opinion that the federal government has singled out physicians from all segments of our society, and discriminates against physicians by forbidding them from entering into contractual agreements freely with their patients. Of necessity this will deny Medicare patients the opportunity to select physicians from whom they wish to receive their care. This is just another step that the bureaucracy is taking to attempt to bring physicians under direct control of the federal government. Furthermore, the use of the words "participating" and "nonparticipating" is inappropriate because the Medicare patient infers that nonparticipating physicians do not treat Medicare patients. How much more do we wish to take? How much farther are we willing to go?

The American Medical Association on September 24, 1984, asked the federal court for an injunction against the Department of Health and Human Services with respect to implementation of that portion of the Deficit Reduction Act of 1984 which applies to Medicare patients and physicians, and I applaud this move.

Thomas K. Ballard MD

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NOVEMBER, 1984

editorials

On Hanging Separately

Ordinarily for this issue I write a lengthy, and doubtless scarcely read, piece about the annual meeting of the AMA House of Delegates. For several reasons, this year I propose not to do that. It's not that nothing happened. To the contrary, the handbook was the thickest ever, with Board of

Trustees reports running well into triple letters—in all, reports of the Board and the various councils numbered 73—and 182 resolutions, substantially more than ever before. In the first place, thanks to the enthusiastic if not always perspicacious new Hospital Medical Staff Section, in addition to the always prolific Medical School, Student, and Resident Sections, the House had a vast number of last minute resolutions dumped into its lap. Since the delegates had little time to consider them, despite the pleas of the Board to keep referrals to a minimum, the House referred a lot of them for study with instructions to report to the Interim House.

In the second place, I have already dealt in some detail with one of the most important and far reaching aspects of the meeting, which is the Health Policy Agenda for the American People (*J Tenn Med Assoc* 77:478-480, Aug 1984). In case you have not already done so, you should familiarize yourself with the planning document just finished so as to be able to discuss specific recommendations for action now being formulated and projected for completion early in 1986. It is imperative that all physicians make their opinions known if they wish to influence at all the way medicine will be practiced in the next decade or so, as that document, the product of an impressive array of private and governmental organizations, will likely play a key role.

In the third place, government intrusion into the practice of medicine is expanding so rapidly and erratically that much of what was done at the meeting is at most of only historic significance. The big news during the meeting was that the requirement for acceptance of assignment for payment by Medicare had been defeated. The elation that news generated quickly turned to dust and ashes, however, when a short time later HCFA produced its answer with regulations that, although not making it mandatory, made acceptance of assignment highly desirable by inflicting dire penalties on non-acceptors. There is no use indulging in a lengthy exposition of anything in that area, for by the time you read this—in case you do—it will also doubtless be obsolete.

A few days ago the AMA announced its intention to sue the government to set aside as unconstitutional the Medicare amendments passed with the Deficit Reduction Act of 1984 containing the reimbursement freeze under Medicare, since the establishment of "participating" and "nonparticipating" classes of physicians will deny Medicare beneficiaries the ability to select the physician from

whom they will receive care. In addition, the legislation freezes nonparticipating physicians' fees to Medicare patients until Oct. 1, 1985, thereby singling out nonparticipating physicians alone among all segments of our society in forbidding them from freely entering into contractual agreements with patients. Finally, the provisions that mandate restrictive fee schedules for clinical laboratories will deprive Medicare beneficiaries and others of complete medical services by promoting the reduction of those services, particularly in small and rural communities. The AMA considers that this legislation will seriously jeopardize the availability, access, and complete delivery of medical services to the American people.

There is no question that government is making a concerted effort to control health care generally, and physicians in particular, as its key element. How that control is accomplished depends to a large degree upon the outcome of the elections in November, which you will know about by the time this reaches you. The present administration stops short of placing all doctors on salary—and a low one at that—and completely nationalizing the medical service. Others have no such compunction. The best we can look for is increasing incursions through competition from federally subsidized HMOs and regulation by HCFA and PROs. Though some rationing of services and technology is inevitable, regulators will make every effort to ensure that physicians are seen as the culprits.

Several reports and resolutions before the House spoke to this problem. Resolution 146, adopted by the House, resolved that whereas "the current DRG law threatens to interpose itself between hospitals and patients and physicians in the matter of cost restraints versus good medical care. . . . The AMA reaffirms that physicians are the prime patient advocates, are not rationers of medical care, and will continue to utilize diagnostic and therapeutic measures and facilities in the best interest of the individual patient."

CMS Report I speaks to quality of medical care, which is difficult to measure or even define. Though I will publish that report, I will remark here that it defines "care of high quality as being that which consistently contributes to improvement or maintenance of the quality and/or duration of life." It recommends that the Association use "all appropriate opportunities and channels to inform the public that it is *this* concept and definition of quality that the profession's efforts are directed toward preserving."

The address of incoming President Joseph E.

Boyle, which has already been so widely distributed that despite my earlier intention to do so I shall not publish, bore heavily on that theme, cautioning physicians not to be diverted from their primary responsibility by government regulations and the business considerations of their practice, but to firmly resolve and affirm publicly their dedication first to their patients' welfare, regardless of outside pressures to act otherwise. Such a position is the only moral and ethical one, and is also our best and indeed our only defense against government intrusion, as all sorts of disruptions of the physician-patient relationship are introduced by such things as DRGs, and the "gatekeeper" concept with its pre-admission certification by a third party required by PROs. It will be further undermined by insinuation of such plans into the physician's office practice and their extension to include not just governmental but all third party payors.

In related actions, the House voted to continue the AMA's strong and concentrated efforts to seek elimination of the DRG attestation statement that requires physicians to certify primary and secondary diagnosis and procedures, and to seek legislative and regulatory changes to ensure that differences in DRG-based payments to different categories of hospitals (rural and urban) are based on true differences in the costs of providing services by those hospitals rather than on arbitrary geographic criteria. The House opposed the mandated algorithmic or cookbook/decision tree method of establishing a treatment regimen as cost effective under the Medicare payment system, and opposed the expansion of DRGs to physicians' offices. It also voted to seek changes in the DRG system to provide adequate reimbursement for events arising during hospitalization that significantly add to a patient's requirements for care.

After considering five resolutions pertaining to reimbursement for cognitive services, the House approved a substitute resolution that asked the AMA to support the concept that third party payors should provide more equitable reimbursement for physicians' services that are solely cognitive, in comparison with their procedural services, and to take appropriate action to promote more equitable reimbursement for solely cognitive services with third party payors, business groups, and other professional associations.

In addition to the well-researched reports of the Council on Scientific Affairs, the Association further expressed its concern for the public as the House adopted resolutions concerning automobile safety, recommending mandatory installation of air

bags and requiring seatbelts in all vehicles used to carry passengers, and supporting mandatory seatbelt use and child passenger restraint laws.

Tobacco use continued under fire as the House voted to urge Congress to strengthen warnings on cigarette packages to say that smoking causes cancer of the mouth, larynx, and lung, is a major cause of heart disease and emphysema, and is addictive and may result in death. It also urged a study of the safety and efficacy of nicotine chewing gum as an aid to smoking cessation, to ask the Surgeon General to place health hazard warnings on all snuff and chewing tobacco packages, to encourage physicians to schedule extra time to explain the health hazards of smoking to their patients, to urge hospitals, offices, and all other medical care facilities to declare themselves off-limits to smoking, and to work to protect the health of nonsmokers on airplanes.

The Hospital Medical Staff Section met for two days prior to the opening of the AMA House, with over 700 representatives registered from virtually every state. They considered about 60 resolutions and submitted 18 for consideration by the House. In approving a number of resolutions related to the organization and operation of the medical staff, the House supported the medical staff's authority to approve or disapprove all amendments to medical staff bylaws, supported the idea that hospital governing boards cannot unilaterally change medical staff bylaws, encouraged hospitals and medical staffs to make all medical staff rules available to physicians, directed the AMA to oppose any regulation that would mandate voting privileges for non-physician members of the medical staff, and recommended that medical staffs develop bylaw provisions that affirm the binding effect of medical staff bylaws on the hospital governing board and the medical staff.

On signing the Declaration of Independence on July 4, 1776, John Hancock avowed, "We must all hang together, or most assuredly we shall all hang separately." That has never been more applicable than to the medical profession in this year of our Lord 1984. Nonetheless, we seem as bent as the lemmings on our own self-destruction as we bicker among ourselves over trivia and our own selfish interests. We need the AMA as an umbrella. Though there are several large and powerful specialty groups, no other organization has either the numbers or the broad range necessary for influencing the course of medicine. It is neither possible nor desirable for the AMA to work solely for its members. Its actions influence every physician.

Since that is so, every physician needs to belong. To be sure, it is expensive, but not nearly so expensive as some of the alternatives Big Brother has in mind for us. If you do not like what the AMA does, and believe it does not represent you, join up and exert your influence. Everyone can be heard—even non-members—but should you allow your colleagues to carry your load?

Attend a meeting. Anyone, physician or not, if registered can speak in reference committee hearings, and can attend the Assembly. Join up and become active. You may save your practice, and you might even be able to continue practicing in the manner to which you have become accustomed. Contrariwise, splinters are not good for very much.

J.B.T.

Teenage Pregnancy

A story attested to as fact tells of the Sunday afternoon drive some years ago a couple and their 14-year-old son. Says the mother, "Have you had a talk yet with Tommy about the facts of life?" "No," replies Daddy. "There's no time like the present," says Mommy. "Tell him." Says Daddy, "Lesson number one: Get all you can while you can. End of lesson."

Don't laugh!

In this issue of the *Journal* we carry a paper addressing the problem of teenage pregnancy, a major health problem that is placing an ever-increasing burden on society generally and medical resources in particular. As the abortion rate continues to rise, teenagers are responsible as a group for the highest proportion; in addition, those that go to term, as well as their babies, have a higher incidence than others of morbidity and death.

Among the many facts cited in the paper, the most startling to me were the lack of knowledge among teenagers about the relationship between intercourse and pregnancy, and the reasons given for failure to employ contraception. That would have been expected 40 years ago, in the days of my own youth, but I would have thought that the "sexual revolution" of recent decades would have changed all that. Apparently it did not.

My experience as a venereal disease control

officer in the army during World War II gave evidence that the heat of the moment militates mightily against judgment, and both educational experience and mechanical barriers are likely to find themselves inundated by floods of passion. The only relatively certain obstacle to impregnation open to most teenagers is "the pill," as few of them have intrauterine devices. The pill, however, like other means, too often also finds itself safely (or more properly, unsafely) buried in purse or dresser drawer when it is needed.

I am not overly optimistic about the effectiveness of birth control by any means at all, which implies that all available ones must be employed. Having watched with amazement the relative ease with which some of my contemporaries and their lovelies managed to escape the chaperoning tentacles of Ward Belmont, it is no wonder in our present open society, awash as it is with sex, that opportunity for copulation, and therefore impregnation, abounds. Since the source is unlikely to be dried up, and since pregnancy seems no longer to be feared as it was 50 or even 30 years ago, other means of prevention need to be avidly pursued.

Back in the early days of the sexual revolution efforts were made to introduce sex education into our schools and churches. They were hooted down as nefarious schemes to debauch our youth, as if there are any such ideas that young minds have not already thoroughly considered. Parents forget too soon what it was like to be young. Though the study reported herein indicates that classes in sex education do not in fact debauch, their effectiveness is also called into question. Filling the gap, therefore, is where I think we come in.

The burden, whether we fancy it or not, really must rest upon the individual family physician, in cooperation with parents, even though all are naturally reticent, and frequently embarrassed by sexual discussions—not to say ignorant. Young people—I mean *young* people, when the sap first begins to rise—need to be instructed in simple terms about the consequences of sexual union. They need to be assured that this union has a spiritual quality, and is thus not to be joined lightly. Nevertheless, angels have fallen over less, and so young people—male and female—need not only to be instructed about when the most and least fertile periods in the female cycle are, but counseled that such knowledge does not confer immunity against conception, and that in fact only continence does. They need then to be instructed

that in case continence fails, there are mechanical barriers that protect against both conception and disease, but that to be effective they must be used.

Every parent likes to think it can't happen here. In this particular situation there is no good news. There may not be a solution to the teenage pregnancy problem, but if we are *really* concerned about it, trying our hand at education seems a small enough price for us as physicians to pay. Up to this point, at least, nothing else appears to be working.

J.B.T.

Jack E. Ballentine, *R.I.P.*

So many individuals have contributed so much to this Association that I generally resist my own urge and the urging of colleagues to single out any for memorializing in these columns. The passing of one who gave such signal service as Jack Ballentine did, however, pursued with such single-minded devotion for more than 20 years, requires whatever special notice that is in my power to give.

With a background of important executive and administrative positions with the Newspaper Printing Corporation, General Shoe Corporation (later Genesco), the Nashville Chamber of Commerce, and Aladdin Industries, Jack joined medicine in 1950 as the first executive secretary of the Nashville Academy of Medicine and Davidson County Medical Society, where he quickly gained the respect of its members for his superb organizational and administrative ability. In 1954 he was tapped by the Board of Trustees of the Tennessee Medical Association to succeed V. O. Foster as its chief executive officer, serving it with loyalty and distinction until his retirement in 1976.

In his *History of the Tennessee Medical Association, 1930-1980*, R. H. Kampmeier, M.D., my mentor and predecessor as *Journal* editor, said of Jack Ballentine that "he became very effective as a stabilizing influence during a period in history when exigencies arose time and time again. He led committees and their chairmen and/or officers of the Association to react quickly and appropriately by the organization of needed infor-

mation and agenda . . . [He efficiently expanded his staff] to meet new responsibilities resulting from the pressures upon organized medicine from the multiple facets of society and government. . . . Another evidence of Jack's organizational abilities was his control of and husbanding of the Association's finances . . . [keeping] a tight budgetary control against waste. . . ."

Although I knew Jack Ballentine only casually before signing on as incoming *Journal* editor in the summer of 1971, I quickly found that with absolute fairness and honesty he ran a tight ship, and that everything Dr. Kampmeier said about him was true. He proved a sound counselor and steadfast friend who could always be depended upon to do for the Association his absolute best as he saw it, and the way he saw it was seldom in error.

Following his retirement, the House of Delegates in 1977 adopted a resolution in recognition of Jack Ballentine's contributions to the TMA. Dr. Kampmeier appropriately commented that "words are inadequate to recognize someone's contributions to a cause; nevertheless the resolution attempted to express the appreciation of the Association for Mr. Ballentine's years of devoted service." The resolution spoke of his "impeccable integrity, his devoted loyalty, his unsurpassed ability, [and his] seasoned judgment and sound counsel [in his contribution to the Association, which] contributed appreciably to [its] growth and progress." Those of us privileged to have worked closely with Jack know that though everything the resolution says is both true and eloquently stated, words do indeed fail in the attempt to express it.

In failing health for several years, Jack left us quietly during the night of September 26, 1984. Good friend, rest in peace.

J.B.T.

Thanksgiving, 1984

I know only one language well, but I know a fair amount about several and a little about quite a number—at least enough to pass the time of day. To the standard greeting in all of them, "How are you?" or "How goes it?" there is an expected answer—"Fine. Bene. Bien." The question is

rhetorical and the answer stock. Though slight deviations—"Fair—pretty good—okay"—are tolerated, tell much more and you are being impolite. Among friends there are flip answers such as "How much time have you got?" or "Compared to what?"

Most of us win some and lose some, and how the years go for us depends a lot upon our outlook. During the past year my ophthalmologist and my dental hygienist retired, requiring adjustments of me; that and the increasing numbers of funerals served to remind me of my own mortality. The government has given medicine's screw another turn, but medicine is still a satisfying occupation, one that is still rewarding psychologically, socially, and financially. The weather was too hot or too cold or too wet or too dry, but trees came green this spring and flowers sprang up in gaudy profusion, and though it may be either more or less than usual, brilliant color will cap the trees of autumn. The one thing certain is that we never have a "usual" year—only this one. Elections are coming up, with results that will satisfy some and not others, but we *do* have elections—free ones—with the option of the majority to throw the bastards out, and no one is being roused from his bed in the middle of the night and shipped off to the Gulag or Auschwitz. Though perhaps not utopia, America's 1984 is still not Orwell's.

The coming year may be one of the best or one of the worst, compared to some but not to others; it could also be my last on this earth, but that would make it the first in eternity. I am grateful to God for His provisions for that eventuality, making it a no-lose situation, since here or there He has promised, "I will never leave you nor forsake you."

Both "How goes it?" and the answer are usually automatic, therefore thoughtless, but given any thought, we subconsciously compare our own state to some other, either to the ideal, which though it may make one thankful, tends not to, or to that of the man who has no feet, which does, or should. Human nature tends toward the former comparison. Before God we need to consider instead the latter. Since even the least fortunate of us has a great deal more to be thankful for than those first Thanksgivers in the Massachusetts Bay Colony, that makes for a more appropriate Thanksgiving Day, and for most of us in the United States of America one on which we can be profusely thankful.

J.B.T.

TMA Members Receive AMA Physician's Recognition Award

Twenty-five TMA members qualified for the AMA Physician's Recognition Award during August 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Ronald B. Addlestone, M.D., Nashville
John W. Avera, M.D., Oak Ridge
Hugh G. Barnett, II, M.D., Jackson
Stanley L. Bise, M.D., Crossville
Archer W. Bishop, Jr., M.D., Knoxville
Jane W. Brown, M.D., Jackson
Joe L. Brown, II, M.D., Jackson
Benjamin F. Byrd, Jr., M.D., Nashville
David C. Chaffin, M.D., Cleveland
Frederick J. Chapin, M.D., Cookeville
Michael Dimler, M.D., Johnson City
Doran D. Edwards, M.D., Nashville
Stuart A. Frank, M.D., Chattanooga
Evangelito C. Garingan, M.D., Cookeville
Michael E. Glasscock, M.D., Nashville
Robert J. Gubler, M.D., Johnson City
Alan S. Henson, M.D., Madison
C. Burton Keppler, M.D., Kingsport
Richard E. McLendon, M.D., Nashville
V. Tupper Morehead, M.D., Nashville
Carl W. Rogers, M.D., Lebanon
Burton M. Rudolph, M.D., Knoxville
Alan Solomon, M.D., Knoxville
James G. Stensby, M.D., Winchester
Ronald E. Turk, M.D., Greeneville



Robert Austin Anthony, age 58. Died August 19, 1984. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Parley Martin Dings, age 77. Died September 1, 1984. Graduate of University of Tennessee College of Medicine. Member of Roane-Anderson County Medical Society.

Ira M. Gambill, age 90. Died August 1, 1984. Graduate of University of Tennessee College of Medicine. Member of Washington-Unicoi-Johnson County Medical Association.

Samuel Joseph Platt, age 93. Died September 15, 1984. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

Julian E. Williams, age 74. Died September 13, 1984. Graduate of University of South Carolina College of Medicine. Member of Sullivan County Medical Society.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Thomas A. Cook, M.D., Chattanooga
Michael W. Goodman, M.D., Chattanooga
Mary C. Hammock, M.D., Chattanooga
Sylvia L. Krueger, M.D., Chattanooga
George W. McLean, M.D., Chattanooga
Jen-Tsoh Weng, M.D., Chattanooga

COFFEE COUNTY MEDICAL SOCIETY

Patricia A. Perry, M.D., Tullahoma

HAWKINS COUNTY MEDICAL SOCIETY

Larry H. Elkins, M.D., Rogersville
Francis Goyeau, M.D., Rogersville

LAKEWAY MEDICAL SOCIETY

Dewayne P. Darby, M.D., Jefferson City

NASHVILLE ACADEMY OF MEDICINE

Richard T. Beeler, M.D., Nashville
Charles M. Besharian, M.D., Nashville
James N. Black, Jr., M.D., Nashville
James D. Bryant, M.D., Antioch
Susan H. Bryant, M.D., Nashville
Laura L. Dunbar, M.D., Nashville
David N. Dyer, M.D., Nashville
Sudhir C. Ghosh, M.D., Nashville
Robert P. Graham, Jr., M.D., Nashville
Jeffery G. Haladay, M.D., Nashville
George A. Housley, Jr., M.D., Nashville
Robert C. Murray, Jr., M.D., Nashville
Eddie J. Reddick, M.D., Nashville
William L. Stone, M.D., Nashville
Ann O. Wehr, M.D., Nashville
Steve A. White, M.D., Madison

**NORTHWEST TENNESSEE ACADEMY
OF MEDICINE**

Sik M. Fan, M.D., Covington

WARREN COUNTY MEDICAL SOCIETY

Oscar S. Spivey, M.D., McMinnville

Deborah A. Winters, M.D., McMinnville

**WASHINGTON-UNICOI-JOHNSON COUNTY
MEDICAL ASSOCIATION**

Marian L. Bertotti, M.D., Johnson City

personal news

James D. Saino, M.D., Memphis, has been elected to Fellowship in the American Academy of Pediatrics.

Francisco C. Vallejo, M.D., Tullahoma, has been inducted as a Fellow of the American College of International Physicians.

**PRACTICE OPPORTUNITIES
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The TENNESSEE PHYSICIAN PLACEMENT SERVICE acts as a clearinghouse for private practice opportunities serving communities or practicing physicians seeking a physician or associate as well as physicians seeking practice opportunities within Tennessee. There is no charge to physicians or communities utilizing our service (no fee-for-service agency inquiries accepted).

Various sets of data, such as practice sites by specialty, medical specialties serving a given area, demographic and economic information by community and other information pertaining to health care delivery systems, are available upon request to assist physicians seeking a practice location in the state. At your request, this service will also refer your curriculum vitae to those listing practice opportunities.

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Physician Placement Service
Tennessee Department of Health and Environment
R. S. Gass State Office Building
Ben Allen Road—Nashville, TN 37216
(615) 741-7308

announcements

CALENDAR OF MEETINGS

NATIONAL

- | | |
|------------|---|
| Dec. 1-4 | American Society of Hematology—Fontainebleau, Miami |
| Dec. 1-6 | American Academy of Dermatology—Washington, D.C. |
| Dec. 5-8 | Cervical Spine Research Society—Hilton Hotel, New Orleans |
| Dec. 6-9 | American Academy of Psychoanalysis—Roosevelt Hotel, New York |
| Dec. 8-9 | National Kidney Foundation—Sheraton, Washington, D.C. |
| Dec. 19-23 | American Psychoanalytic Association—Waldorf-Astoria, New York |
| Jan. 20-25 | American College of Medical Imaging—High Sierra Hotel, S. Lake Tahoe, Nev. |
| Jan. 21-23 | American Society for Surgery of the Hand—MGM Grand Hotel, Las Vegas |
| Jan. 24-29 | American Academy of Orthopaedic Surgeons—Las Vegas Convention Center, Las Vegas |

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Gastrointestinal Endoscopy in the Small Community Hospital

JAMES E. CHAPMAN, JR., M.D. and DOUGLAS M. CLARK, P.A.

Safety and Efficacy

Flexible fiberoptic sigmoidoscopy, colonoscopy, and esophagogastroduodenoscopy have become routine in the investigation and diagnosis of diseases of the upper and lower gastrointestinal (GI) tract. These procedures are becoming more and more available at the community hospital level, and with greater emphasis on formal training in these disciplines, there will be even greater availability at this level. Recently, the American Board of Surgery has begun to require documentation of endoscopic training in general surgical residency programs,¹ and internal medicine subspecialties offer similar services. As the sophistication of the instrumentation and the skill of the endoscopist have increased, the indications have become more liberalized and the complication rates have fallen.

Upper GI endoscopy has become an accepted diagnostic procedure not only in emergencies but electively.² Study of the stomach, esophagus and duodenum for the detection of benign and malignant disorders is probably the most common endoscopic procedure. Its accuracy in the evaluation of acute and chronic upper GI bleeding is well established. Upper GI endoscopy has also been useful in general evaluation of abdominal

pain and in the follow-up of previously diagnosed and postoperative patients. Use of intubation for palliation and recently for placement of gastrostomy feeding tubes have been well described.³ Therapeutic uses include sclerotherapy for variceal and other mucosal bleeding, polypectomies, duodenal intubation, and various disorders of the papilla of Vater. Endoscopic retrograde cholangio-pancreatography will not be addressed here.

Flexible fiberoptic colonoscopy has challenged radiography in the diagnosis of colonic disorders. Major indications for colonoscopy are usually the verification of radiologic findings, polypectomy, investigation of colonic bleeding and more occult colonic symptoms, and surveillance after surgery.^{4,5} The safety of the procedure has been well documented.⁶

We present a modest series of 562 upper and lower GI endoscopic procedures performed by one surgeon in a small community hospital, with specific attention to complications, correlation with x-ray findings, and the usefulness of the procedure in this setting.

Method and Results

Between July 1, 1980 and Sept. 30, 1983, 562 flexible endoscopic procedures were performed, including 383 esophagogastroduodenoscopies and 179 flexible fiberoptic colonoscopic examinations. The age range was from 12 to 99 with the mean age being 60 and the sex distribution approximately equal. There were 481 inpatient and 81 outpatient procedures.

From the Department of Surgery, Harriman City Hospital, Harriman, Tenn., and the Oak Ridge Surgical Clinic, P.C., Oak Ridge, Tenn.

Presented at the first annual scientific session of the Society of American Gastrointestinal Endoscopic Surgeons, Philadelphia, April 8, 1984.

Reprint requests to Oak Ridge Surgical Clinic, P.C., 170 W. Tennessee Ave., Oak Ridge, TN 37830 (Dr. Chapman).

TABLE 1

INDICATIONS FOR UPPER GI ENDOSCOPIC STUDIES

Indication	Number	Positive	Negative
Gastrointestinal bleeding	62	40	22
Abdominal pain of unknown origin	52	30	22
Peptic ulcer disease	222	158	63
Surveillance	29	9	20
Dysphagia	5	4	1
Probable gastric carcinoma	7	3	4
Submucosal gastric mass	1	0	1
Metastatic work-up	1	1	0
Big fold disease	1	1	0
Foreign body ingestion	1	1	0
Zenker's diverticulum	2	2	0

TABLE 2

COMPARISON OF UPPER GI CONTRAST EXAMINATIONS AND ENDOSCOPY IN 88 PATIENTS

	Gastroscopy Positive	Gastroscopy Negative	Total
Pre-Endoscopy Upper GI Series Positive	71	17	88
Pre-Endoscopy Upper GI Series Negative	23	23	46
Total (134 Upper GI)	94	40	

TABLE 3

INDICATIONS AND FINDINGS FOR COLONOSCOPIC PROCEDURES

Indications	Number	Positive	Negative
Hematochezia	49	22	27
Polyps	22	11	11
Surveillance	31	14	17
Metastatic work-ups	2	0	2
Clinical or contrast evidence of carcinoma	38	19	19
Diverticular disease	16	12	4
Abdominal pain of unknown origin	14	5	9
Frank change—Bowel habits	6	3	3
Inflammatory bowel disease	1	1	0

TABLE 4

COMPARISON OF COLON CONTRAST EXAMINATIONS AND ENDOSCOPY

	Colonoscopy Positive	Colonoscopy Negative	Total
Pre-Endoscopy B.E. Positive	31	24	55
Pre-Endoscopy B.E. Negative	2	12	14
Total B.E. examinations 69	33	36	

Patients were prepared with preoperative sedation including meperidine (Demerol), diazepam (Valium), promethazine (Phenergan), and atropine, and intravenous sedation with diazepam and/or meperidine as needed. Only one patient in the series required general anesthesia. Viscous lidocaine (Xylocaine) and topical 20% benzocaine spray were used for hypopharyngeal anesthesia for the upper GI studies, and standard colonic preparations were used for colonoscopic examinations.

Indications for the upper GI examination are shown in Table 1. Overall, there were 250 examinations that were found to be positive and 133 that were found to be negative (Table 1). Of two complications, one was a discontinued procedure because of angina and the other was inability to pass the gastroscope.

There were 88 patients with positive upper GI radiologic examinations who were endoscoped. The correlation as shown in Table 2 was good with positive contrast studies of the upper GI tract, and yet there were a significant number of positive findings on endoscopy in the face of negative contrast studies.

Table 3 shows the results of 179 flexible fiberoptic colonoscopic examinations. The general correlation with contrast studies is shown in Table 4. There was one complication in this entire group, a perforation of a sigmoid diverticulum resulting in laparotomy and primary closure without sequelae.

Summary and Conclusions

We conclude that the examination of the upper and lower GI tract with the use of fiberoptic flexible instrumentation in the small community hospital can be done safely and efficiently. The percentage of positive yield is significant even in the face of normal contrast studies performed in the standard manner. The complication rate is exceedingly low, and therefore the risk-benefit ratio seems acceptable.

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*Physician Manpower in Tennessee
In 1978 and 1983*

THORNTON E. BRYAN, M.D.; SANDY K. JOHNSON;
MARTHA LANSING, M.D.; and LISA FARA-GIPSON, M.D.

Physician manpower distribution and a projected physician surplus are currently topics of concern.¹⁻⁴ In an attempt to assess the distribution of physician manpower in Tennessee, a comparison study for the years 1978 and 1983 was conducted by tabulating the various groups of physicians according to specialty, with emphasis on the primary care specialties. The annual licensure registration statistics were obtained from the Tennessee Center for Health Statistics for August 1978 and again for August 1983.⁵ The physician data were organized according to geographic location (county), to age, and to each physician's self-identified medical specialty. These data were overlaid on the Bureau of Census Annual Population Projections for each county in Tennessee.⁶

The categories of physicians identified include family practice (including general practice), internal medicine, pediatrics, and obstetrics/gyne-

From the Department of Family Medicine, University of Tennessee Center for the Health Sciences, Memphis (Drs. Bryan, Lansing, and Fara-Gipson), and the Tennessee Department of Health and Environment, Nashville (Ms. Johnson).

Reprint requests to Department of Family Medicine, University of Tennessee Center for the Health Sciences, 66 N. Pauline, Suite 300, Memphis, TN 38105 (Dr. Bryan).

colony. The remainder of physicians were grouped together in the "other" category. This physician count excludes residents, interns, and physician administrators. The internal medicine category includes all those who identified themselves in the annual registration as general internists. No attempt was made to discover what percentage of this group practices a medical subspecialty, and those who identified themselves as medical subspecialists were included in the "other" category. This divides the internal medicine group, but the emphasis in this study was on primary care, and this division seems appropriate.

Population of the counties in Tennessee was based on the above-mentioned census projections. The counties were grouped by population into four groups: Under 30,000, 30,000 to 60,000, 60,000 to 100,000, and over 100,000. Fig. 1 is a map of the state showing the counties that fall into each category. In 1983 there were 56, 24, 10, and 5 counties respectively in the above groups.

Fig. 2 shows the number and relative percentage of physicians located in each group of counties according to specialty. There is a comparison within each county group by specialty between 1978 and 1983. The number (Fig. 2) of physicians

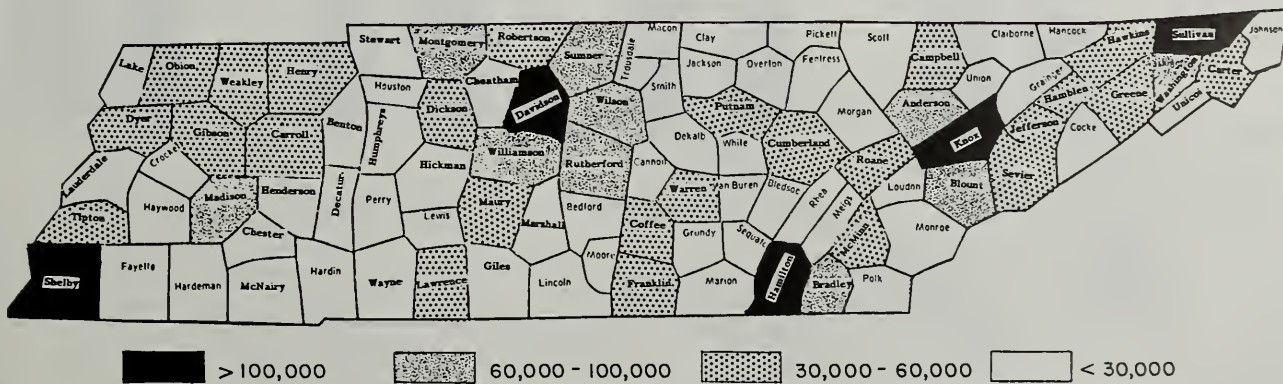


Figure 1. County population—1983. (Source: Bureau of Census Annual Population Projections—1983)

PHYSICIAN MANPOWER/Bryan

TABLE 1

PHYSICIANS PER 100,000 POPULATION*

County Size	No. of Counties	Physician Increase From 1978-1983
Over 100,000	5	27 per 100,000 Pop.
60,000-100,000	10	19 per 100,000 Pop.
30,000-60,000	24	9 per 100,000 Pop.
Under 30,000	56	5 per 100,000 Pop.
TOTAL INCREASE	95	17 per 100,000 Pop.

*Source: Tennessee Center for Health Statistics, August 1978 and August 1983.

within each county group (including family physicians) increases but the percentage of the total for each physician specialty remains constant.

Fig. 2 also shows that family physicians/general practitioners, expressed as the percent of total physicians, increases as we go from greater to less populated counties. In the counties under 60,000 population, the family physician/general practitioner is clearly predominant. Family physicians/general practitioners make up 40% of the

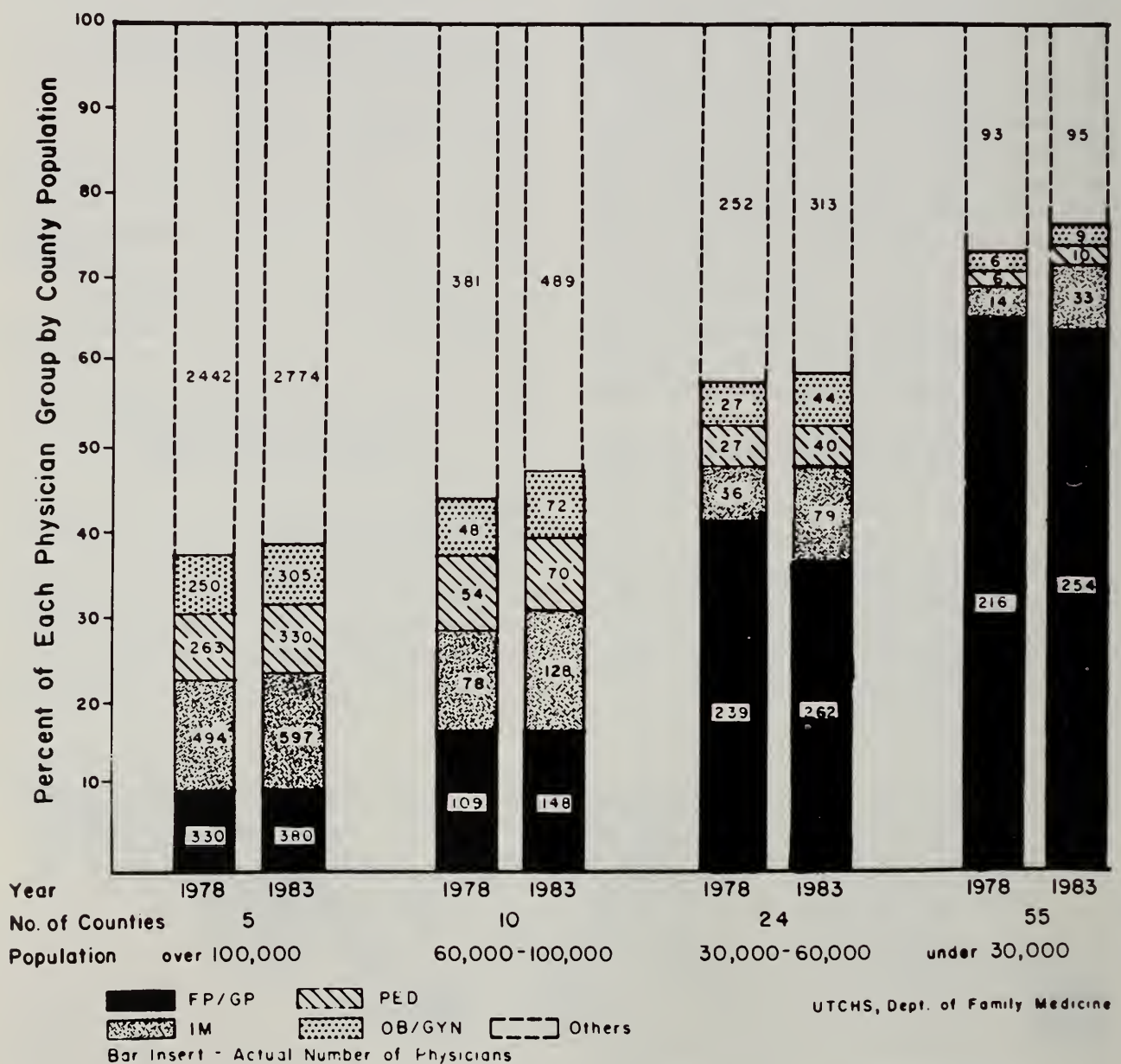


Figure 2. Physician distribution by specialty and county size, 1978-1983.

doctors in counties between 30,000 and 60,000 and over 60% of the doctors in counties under 30,000 population. This fact is also confirmed by parallel data of the number of each physician per 100,000 people as Table 1 and Fig. 3 indicate.

During this five-year period in Tennessee (Table 1) there was an increase in Tennessee physi-

cians of 17 per 100,000 people (from 120 to 137). This increase represents a net addition of 1,067 new practicing physicians in the state. This substantiates the number of physicians in Tennessee as growing faster than the population, and we may expect this trend to continue. Table 1 also indicates that the new physicians showed a definite

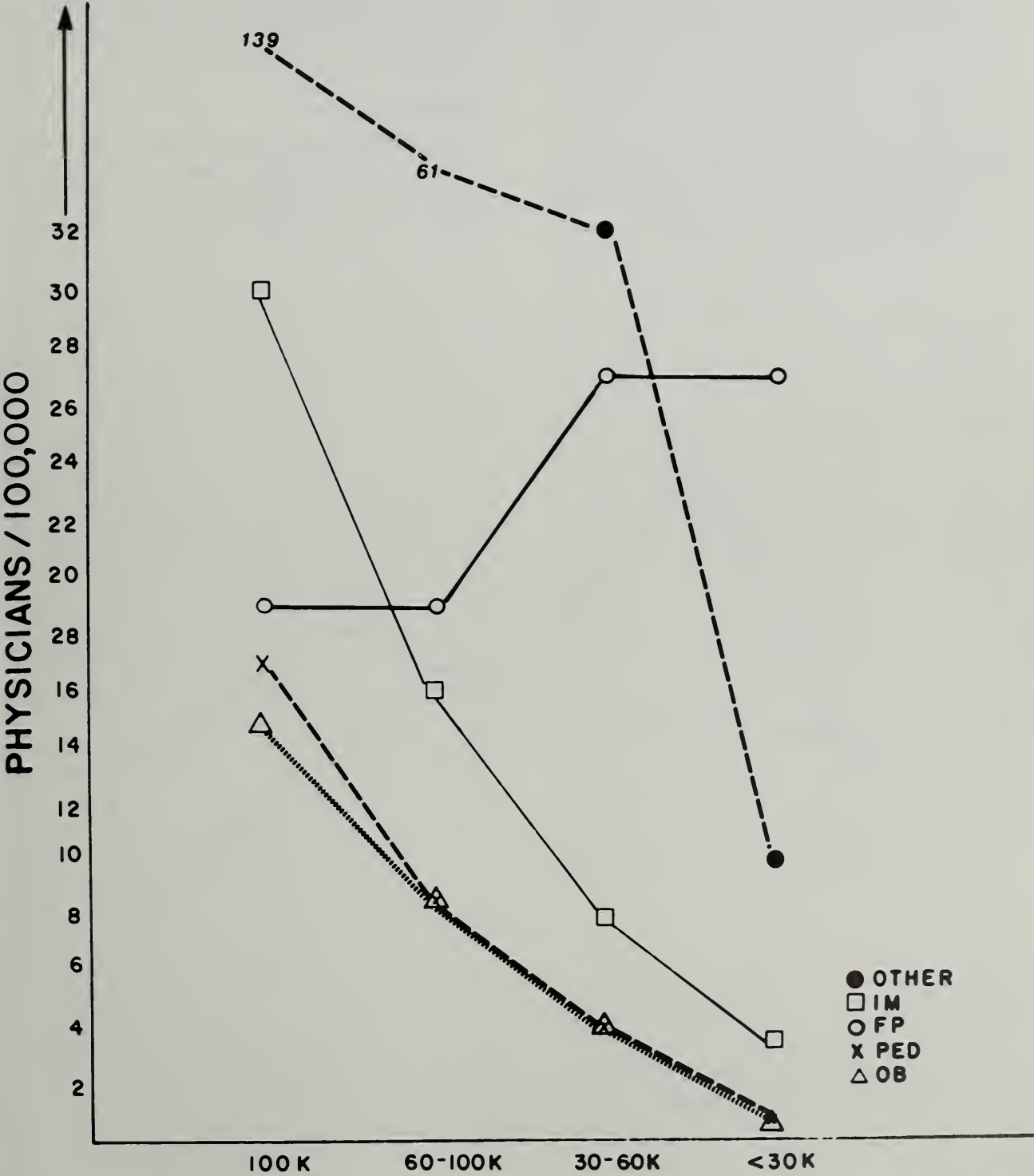


Figure 3. Distribution of physicians per 100,000 in Tennessee counties, grouped by population, 1983. (Source: Tennessee Center for Health Statistics, August 1978 and August 1983)

PHYSICIAN MANPOWER/Bryan

preference for counties with populations greater than 60,000.

Another factor complicating the distribution problem is the significant difference in the average age of family physicians/general practitioners compared to that of all other physicians (Fig. 4). The curve is based on the ages of "all other" physicians by specialty, and the one for internal medicine, pediatrics, obstetrics/gynecology in the state at ten-year intervals shows a peak in each curve at ages 35 to 44. In the case of family physicians/general practitioners, the peak occurs in the decade of age 55 to 64. Forty-three percent of family physicians in Tennessee are beyond age 55, compared to 28% of other physicians. These data indicate an accelerated attrition rate for

family physicians/general practitioners as further depletion of doctors in less popular areas.

The number of first-year residency positions in family practice in Tennessee decreased in the period between 1979 and 1983⁷ (Table 2). The only primary care training programs that increased the number of first-year positions between 1978 and 1983 were those in internal medicine. There was a decrease of eight (-13%) first year residency positions in family practice, and there were 21 new first-year positions in internal medicine (+18%).

Discussion

The concentration of physicians is increasing in urban areas, but the shortage in rural areas continues and will most likely get worse due to the decreasing proportion of family physicians

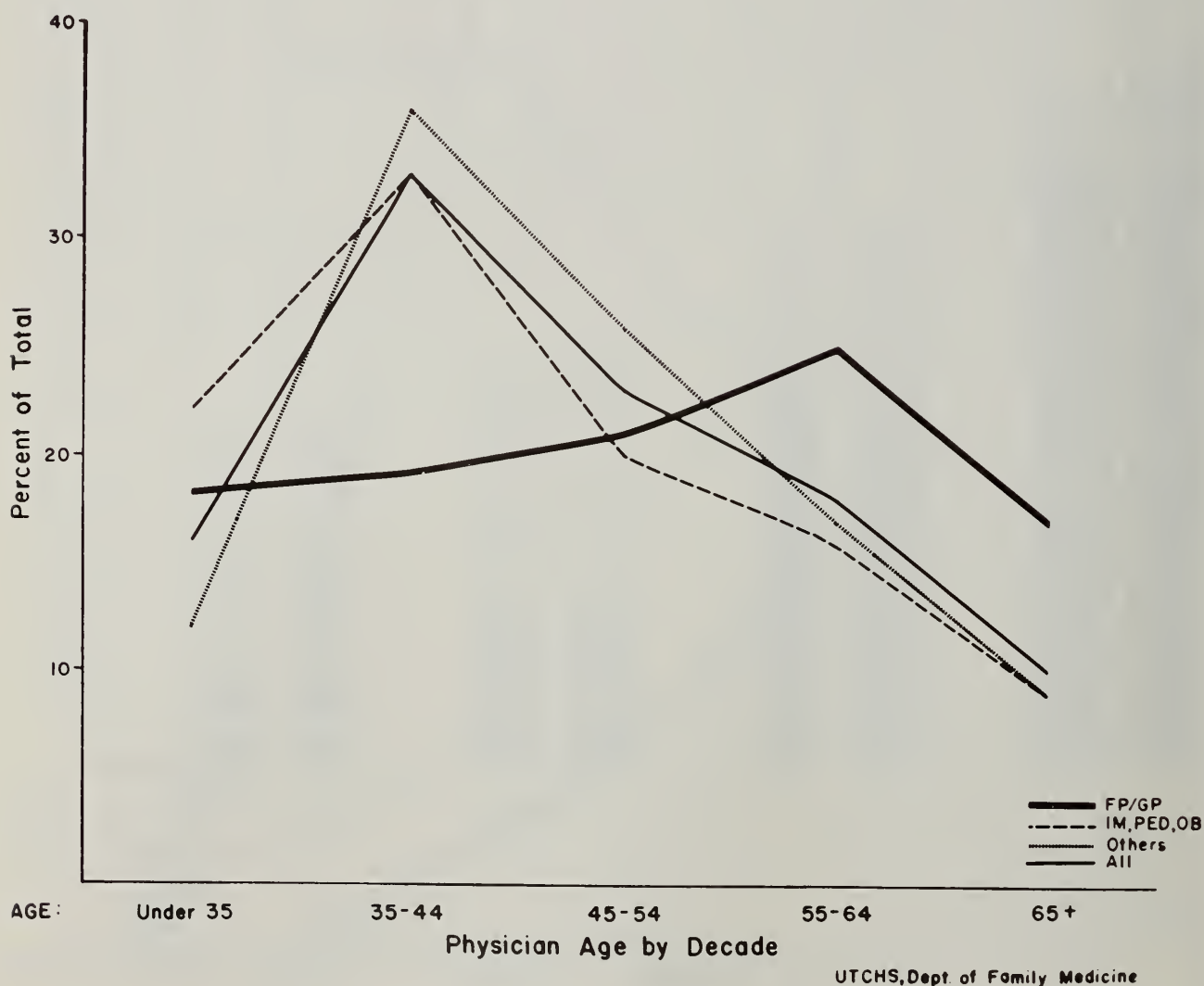


Figure 4. Age distribution of Tennessee physicians, 1983. (Source: Tennessee Center for Health Statistics, August 1978 and August 1983)

practicing in the total physician pool. If this trend continues, we may expect further saturation with physicians of the 15 largest counties in Tennessee (over 60,000) while the remaining 80 counties continue with a doctor shortage. Some believe that shortages will be remedied by the rural relocation of unneeded or unnecessary urban physicians, but such forced redistribution of medical manpower has some obvious drawbacks. This "possible solution" fails to consider whether such an overflow of urban surplus, should it occur, will place physicians in rural areas who are properly trained and competent to furnish the necessary primary medical care. It is interesting that those who support medical specialization as the answer to health care seem to be supporting subspecialization as the answer to general (primary) medical needs, an obvious contradiction in "philosophy." The expectation of training internists, pediatricians and obstetricians in adequate numbers to deliver the full scope of primary care services in rural areas now offered by family physicians is unrealistic. Currently, pediatricians and obstetrician/gynecologists (Fig. 2) are not choosing rural practice sites even if cost-effectiveness were not an issue.

The population and physician manpower distribution data show a definite increase in the physician population in Tennessee between 1978 and 1983, corrected for population gain. Most of the 1,000 plus new physicians settled in counties with populations greater than 60,000 people. The above data also indicate that in the majority of Tennessee counties (80), primary care is largely delivered by family physicians/general practitioners. There are some internists, pediatricians, and obstetricians in these counties, but the numbers and percentages are very low when compared to the number of family physicians. There was an increase in the number of internists in the less populous counties, but this increase is not adequate to offset the accelerated attrition rate of family physicians and the projected population increase. In addition, the area of clinical responsibility of the internist is more limited and requires supplementation by a pediatrician and an obstetrician/gynecologist to match the services rendered by the family physician, a situation not readily available in most rural locations. When compared to the total number of doctors, the percentage of pediatricians and obstetricians did

TABLE 2
FIRST YEAR RESIDENCY POSITIONS
OF PRIMARY CARE SPECIALTIES IN TENNESSEE*

	1979	1983	
Family Practice	60	52	-13%
Internal Medicine	112	133	+18%
Pediatrics	28	31	+11%
Ob/Gyn	27	27	-0-
Transitional/Flexible**	21	40	—

*Source: AMA Directory of Residency Training Programs, 1979-80 and 1982-83.

**Flexible in 1979.

not change in the five-year period and even the numerical increases in counties below 60,000 were insignificant.

Since family physicians/general practitioners deliver the majority of primary health care in 80 of 95 counties (about 50% of the population), we must be concerned about their accelerated attrition, and whether an adequate replacement mechanism is in place. It is cost-effective to have one physician rather than several to meet primary care needs, further supporting the desirability of having competent family physicians to replace those who retire or die.

The geographic maldistribution of physicians is not being alleviated by the growing surplus of doctors in the state of Tennessee. Given the accelerated attrition of family physicians and the continued trend of other physicians to enter practice in urban areas, one must expect that the shortage of qualified providers of primary medical care in rural counties will continue to be a growing problem. The current location and identification by specialty data of physicians in counties of fewer than 60,000 show that the rapidly disappearing family physician is not likely to be replaced by current approaches to solving the rural physician manpower shortage. 

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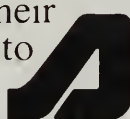
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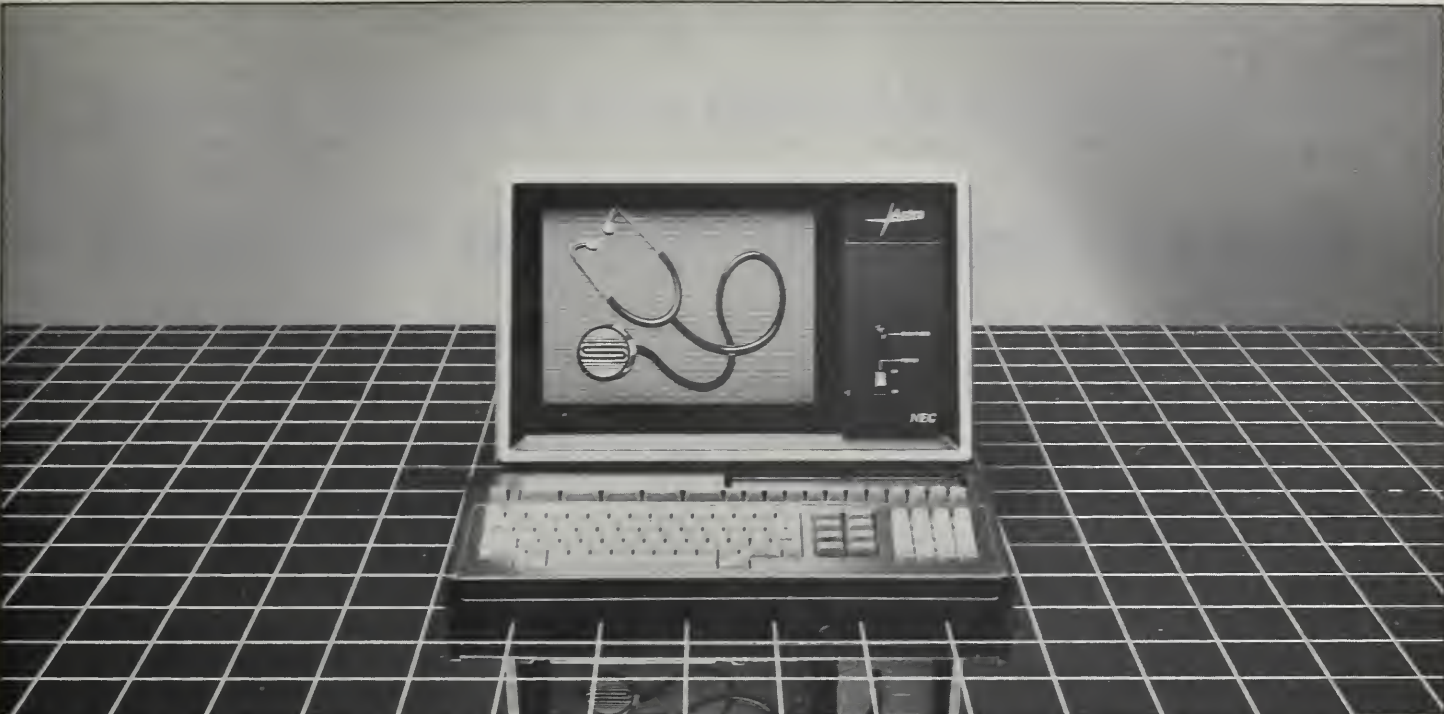
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Technology! Good News—Bad News

J. KELLEY AVERY, M.D.

Case Report

A 27-year-old female, gravida 2, para 0, abortus 1, was admitted to labor and delivery at 12:30 pm on May 27, 1980 with expected date of confinement of May 9, 1980 with a history of her membranes having ruptured four hours earlier. There was slight meconium staining. Fetal heart tones were recorded by the nurse at 134/min with mild contractions every five to six minutes lasting 45 seconds, cervix 80% effaced and dilated to 3 to 4 cm. The head was presenting at -1 station. Following the preparation and enema, the patient's fetal heart tones and contractions were monitored externally and intravenous fluids were begun.

The patient's obstetrician examined her at 2:30 pm and applied the scalp electrode for internal monitoring of fetal heart tones; baseline was 140-150/min with normal variability. Epidural anesthesia was administered by a certified registered nurse anesthetist with bupivacaine (Marcaine) 0.25% without difficulty. No change in variability was noted following administration, but following it, though the contractions continued every three to four minutes, they were of only mild intensity. At 4:00 pm, the cervix was 4 to 5 cm dilated and 90% effaced, and the vertex presentation was -1 station. Following examination by the physician, a 1:1000 oxytocin (Pitocin) drip in 5% dextrose Ringer's lactate solution was begun at two drops per minute. Shortly afterwards the patient began to experience variable decelerations with return to baseline, indicating that the fetus was tolerating the variable decelerations. The oxytocin drip was increased as per protocol and the patient was placed on her left side, but she continued to have variable decelerations with each contraction and the variability was only minimal prior to the next dose of bupivacaine.

The patient's physician examined her again at 5:30 pm, noting the cervix to be 7 to 8 cm dilat-

ed, +1 station. At 5:35 pm, the patient experienced an episode of bradycardia of 60/min which lasted five to six minutes. The oxytocin drip was immediately discontinued, patient was turned on her left side, oxygen administered at 10 liters/min, and IV fluids were increased. The baseline returned to 140-150/min but she began having severe decelerations and variability was noted to be absent. The attending physician again examined the patient, cervix completely dilated and +1 station. She was allowed to continue labor since delivery would be soon. The patient continued to have severe decelerations with slow recovery to the baseline and absent variability. At 6:30 pm, when a second episode of bradycardia of 60/min occurred, emergency delivery was performed by the physician with low forceps. The umbilical cord was wrapped tightly twice around the infant's neck. A 6 lb 3 oz male was delivered with Apgar scores of 0 at one minute, 2 at five minutes. The infant was unresponsive to positive pressure and oxygen mask resuscitation at two minutes and the pediatrician took over resuscitation, which required intubation followed by slow increase in heart rate and improvement of color. The infant began having seizures at 12 hours of age. Final diagnosis was hypoxic encephalopathy; the infant now has severe brain damage.

Loss Prevention Comments

Fetal monitoring has greatly added to the physician's ability to determine the intrauterine condition of the baby with some precision. While ultimate fetal outcome cannot always be predicted, there has emerged broad agreement that emergency intervention is indicated where certain patterns are observed on fetal monitoring.

Here we have a fetal monitoring strip showing "variable decelerations with minimal beat-to-beat

Dr. Avery is the medical director for State Volunteer Mutual Insurance Company.

(Continued on page 720)

School Health Education in Tennessee

FREDIA S. WADLEY, M.D., MSPHA

On Oct. 4-5, 1984, the first Tennessee Conference on School Health Education was held in Nashville at the Vanderbilt Plaza Hotel. The enthusiasm and commitment of the participants leave little doubt that future conferences in the same vital subject will be held in Tennessee. The Tennessee Medical Association and Medical Auxiliary and the Tennessee Dental Association along with the American Lung Association were the sponsors, but the conference drew a multidiscipline audience from the private and public sectors.

One of the reasons for a grass roots movement to educate children about all aspects of their health can best be summarized with the words of Anthony S. Earl, Governor of Wisconsin:

When health care costs in our country exceed 10% of the gross national product, it is time for policymakers to seriously consider the value of health promotion and health education initiatives aimed at the prevention of health problems With more than 48 million children and youth in the United States attending our schools, health education is surely the greatest opportunity we have to make a difference in the positive health habits of our citizenry.¹

It was probably a coincidence that this conference on school health education was held on the 27th anniversary of the Russian launch of Sputnik (Oct. 4, 1957); however, this event launched a technology boom that has changed people's concept of health and their expectations of health care. We are now very grateful for the modern miracles of medicine. Nevertheless, we realize that we cannot reduce the incidence of the diseases that are now producing the morbidity and mortality unless a significant number of people choose a healthier lifestyle.

The greatest challenge of a healthy lifestyle campaign is finding a way to provide adequate health information to the majority of people at an early age before bad health practices are adopted. Although they may be dedicated to

health promotion, private physicians will not be able to meet this challenge, since people often don't avail themselves of preventive health examinations. After school age children receive their school entrance examinations, they often seek a physician only when there is an acute problem. Therefore, more people are concluding that a comprehensive, continuing (K-12), school health education program is the best option we have at this time for changing lifestyles and decreasing the major health problems.

The Tennessee Department of Education has developed a comprehensive health curriculum that can be used in our schools, but there are still some problems in implementing this health curriculum: (1) Local school boards and teachers will have varying degrees of commitment to health instruction. (2) Teachers may need additional training. (3) Resources and materials to teach the new curriculum may not be available. (4) The Family Life Education section will be omitted in many schools.

Family Life Education covers many subjects intended to help students understand family life situations and the responsibilities they carry. Unfortunately, some people consider it is to be just another name for sex education, and insist that it not be taught in schools. Surveys have shown that approximately 80% of parents believe "family life" should be taught in schools, but the 20% who disagree are usually more vocal.^{2(p2)} Studies have disproven the old myth that information pertaining to sex increases sexual activity. However, it can be verified that with sexually active teenage women, 60% more whites and 70% more blacks become pregnant if they have not received sex education.^{2(p5)}

Providing family planning services is not the entire solution to the problem of teenage pregnancy, because 36% of first premarital pregnancies occur in the first three months of sexual ac-

From the Tennessee Department of Health and Environment, Nashville. Dr. Wadley is chief medical officer of the TDHE.

(Continued on page 720)

EKG of the Month

W. BARTON CAMPBELL, M.D.

This 85-year-old hypertensive woman was admitted for evaluation of nightly chest tightness and pressure of one week's duration. Two days prior to admission her pain became more frequent and severe, occasionally occurring during the day. After a particularly severe episode lasting approximately three hours occurred in the late evening, she was admitted to St. Thomas Hospital for further evaluation.

Blood pressure was 160/90 mm Hg, and an S₄ gallop was audible. The CK was moderately elevated at 244 IU (normal 30-215) with CK-2 of 8% (normal <5%). The LDH was 202 IU (normal 73-155) with LDH-1:LDH-2>1. An electrocardiogram was obtained (Fig. 1).



Figure 1

Discussion

The tracing shows sinus rhythm at a rate of 90/min. The PR interval is normal at 0.18 seconds. There is slight J point depression and "sagging" of the ST segments in lead II and aVF. Q waves and slight ST elevation are present in V₁ and V₂ and T waves are inverted in leads I, aVL, and V₂ through V₆. The changes are indicative of evolving anteroseptal myocardial infarction. The P waves are inverted in V₁ and have a duration of 120 msec with slight notching in standard lead

II. This change is compatible with left atrial enlargement.¹

The patient was placed in a monitored bed. On the third night of hospitalization a change in the monitored QRS pattern was observed and an electrocardiogram was obtained (Fig. 2).

The rhythm is regular but faster at 126/min. Alternate beats are widened to 130 msec and show a left bundle branch block configuration. The narrow complexes are not significantly changed and continue to show Q waves in precordial leads V₁ through V₃. P waves preceding the normally conducting beats occur late in the T wave of the preceding beat. They can be seen in

From the Department of Cardiology, St. Thomas Hospital, Box 380, Nashville, TN 37202

leads II and aVL. The PR interval is 0.16 seconds and the PP interval appears regular.

A rhythm strip was obtained (Fig. 3). Left carotid sinus massage was initiated in the mid-portion of the middle strip (the strips are continuous) and discontinued in the mid-portion of the lower strip.

Intermittent left bundle branch block is a well-recognized although uncommon phenomenon.

Wenckebach periodicity within the bundle branches has been well described in humans.² His bundle studies have also demonstrated Mobitz type II block originating within the His bundle and bundle branches.³ Significant alterations in P wave contour or changing PP interval may cause intermittent intraventricular conduction disturbance, probably by allowing transmission of a supraventricular beat to the ventricle while por-

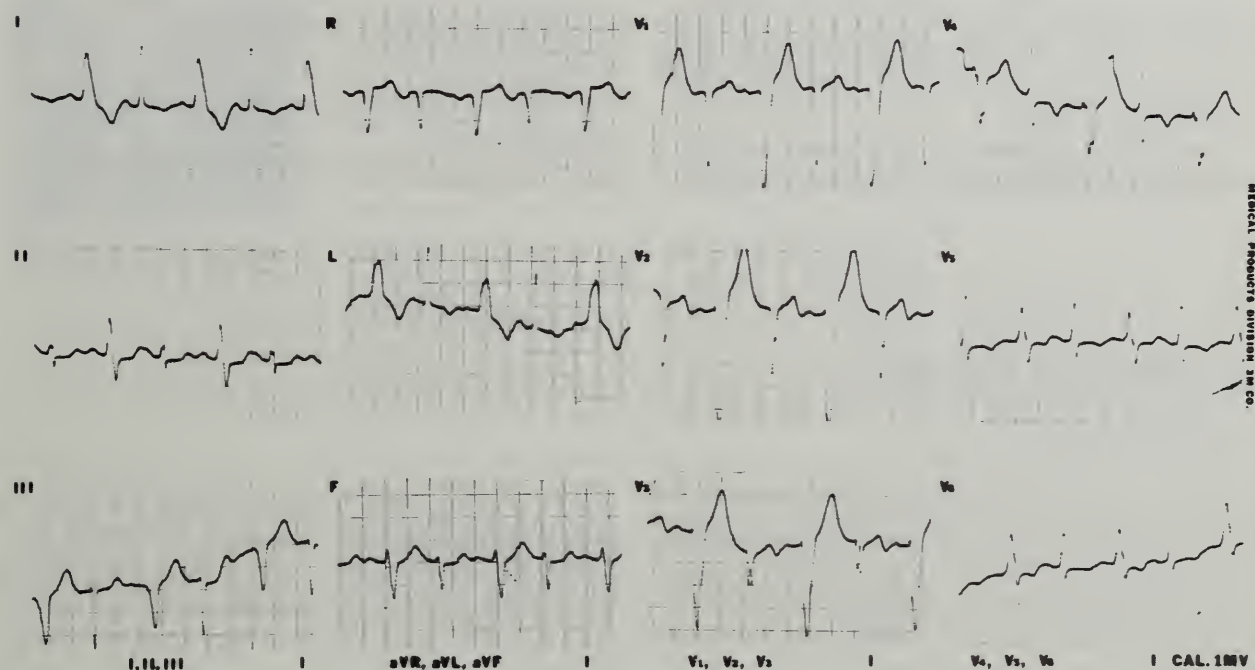


Figure 2

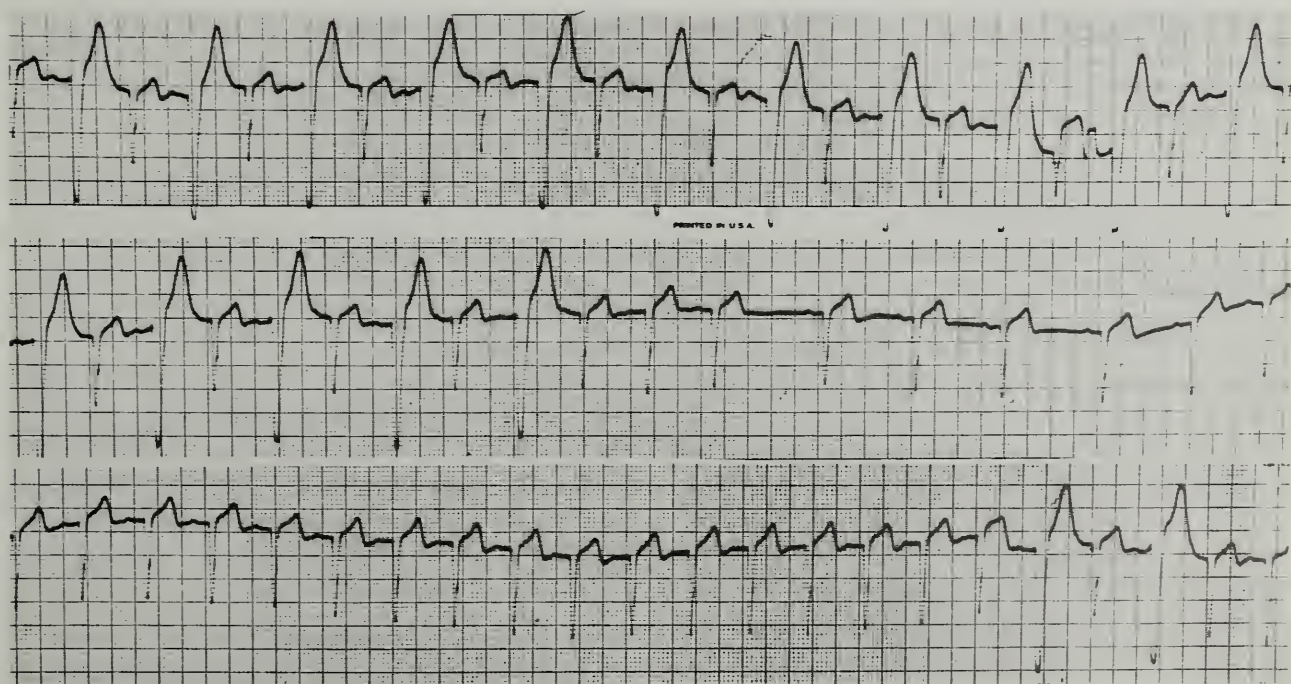


Figure 3

tions of the left bundle remain partially refractory. Rate dependent bundle branch block is a well-recognized entity.^{4,5}

The PP interval (Fig. 2) appears to be perfectly regular, which suggests a 2:1 intraventricular conduction defect of either a Mobitz I or Mobitz II type. With carotid sinus massage there is perceptible slowing of the RR interval (beginning with the 9th beat, middle strip, Fig. 3) and the intermittent left bundle branch block ceases. It abruptly recurs, without apparent Wenckebach periodicity, after the rate increases to 125/min following carotid sinus massage (last four beats of lower strip, Fig. 3).

These episodes proved to be transient and have not recurred. The patient was discharged four

days later without evidence of further dysrhythmias.

IMPRESSION: (1) Anteroseptal myocardial infarction; (2) intra-atrial conduction defect suggesting left atrial enlargement; (3) intermittent left bundle branch block with 2:1 periodicity (ablated by carotid sinus massage with slower heart rate).

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Loss Prevention Case of the Month . . .

(Continued from page 716)

variability" at least two hours prior to delivery. A five- to six-minute episode of bradycardia (60/min) occurred one hour prior to delivery. Since delivery was considered imminent, labor continued. An hour later another episode of bradycardia occurred and an emergency forceps delivery was accomplished. The baby was severely depressed and sustained severe brain damage.

Although expert witnesses for the defendant

doctor testified that their colleague had made a judgment within the standard of care, other academicians were eager to swear that intervention by cesarean section should have been carried out at most two hours, and, at the least, one hour prior to delivery.

A brain damaged baby has a strong appeal to a jury. From past experience in court, a six figure settlement seemed very advisable.

Health and Environment Report . . .

(Continued from page 717)

tivity.^{2(p1)} The average interval between onset of sexual activity and the time teenage females seek family planning services is six months.

Private physicians may not have a great deal of free time, but many in Tennessee are willing to serve on school boards, to participate on school health advisory committees, or to inform their community about health problems and possible solutions. Dr. Shelly Griffith in Athens was even presented a certificate by Governor Alexander for his volunteer activities in promoting school health education and for his classroom instruction on

many occasions.

On the brochure for the Tennessee Conference on School Health Education there was a statement that challenges all of us: "The responsibility for comprehensive school health education for the children of Tennessee belongs to all of us, but the leadership must be assumed by those who can make this happen."

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THOMAS K. BALLARD

Christmas 1984

Once again December arrives with all the hustle and bustle that Christmas brings. It is a time for giving and receiving, a time for reflection and nostalgia, a time for anticipation and happiness.

Christmas for me always brings the memories of times spent in my grandmother's home with uncles, aunts, and many cousins. It was a time of happiness shared with loved ones, and a time to enjoy turkey and dressing, along with chocolate pies and cakes from Grandmother's pie safe, which was never empty. The kitchen at Christmastime was Grandmother's domain. She was always busy preparing for her six sons and their families, yet she was never too busy to provide her grandchildren with whatever their hearts desired. Christmas Eve was always a time for trimming the Christmas tree that my grandfather had brought in that day, and this was an event shared by the entire family. Christmas Eve was always the longest night of the year; the grandchildren were late to bed and early to rise in anticipation for what Santa Claus might bring. It was a time of happiness for which I shall always be thankful.

My Christmas will be spent with these memories, but I am now in a different role, that of being a grandfather rather than being a grandchild, and hopefully I will have my grandchildren with me. They will provide me with joy and pleasure as I watch them open their Christmas gifts. As we sit down in the dining room to have our Christmas dinner we will give thanks to the One who has made all of this possible.

Momentarily we shall forget the trials and tribulations of the world, the trials and tribulations which the federal government has imposed upon the practice of medicine, and the trials and tribulations which we have imposed upon ourselves. May we face 1985 with renewed vigor and hope, even though we may be under many restrictions. May we always strive to provide quality care for our patients who depend upon us.

Mary Frances and I extend wishes to each of you for a very merry Christmas and a happy and successful new year.

Thomas K. Ballard MD

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DECEMBER, 1984

editorials

A Word to the Wise

I keep being reminded of the old saying that the more things change, the more they are the same. Faces come and go, and then reappear, and sometimes it is hard to remember they were gone, and even harder to remember why they left. I need to refresh your memory about one of them.

In 1975 most of the carriers of what was then malpractice insurance quit the field and left most

of the physicians in this state without coverage. The reason they ceased writing policies was that it had become no longer insurance against malpractice, for which there was seldom a payout, but for professional liability. The mood of the courts was not only to hold physicians liable for malpractice, but to require them to indemnify patients for poor results as well. That seemed like a poor business venture to the insurers, and so they bade us goodbye. Goodbye, however, turned out to be, in some instances at least, T.T.F.N. (Ta-ta for now), as Tigger says. I'll come back to that in a minute.

So as to provide relief in an impossible situation, the Insurance Commissioner required all insurers doing business in the state to form a pool for professional liability insurance. It was expensive, and was ultimately replaced by our physician-owned State Volunteer Mutual Insurance Company (SVMIC), which stuck by us when all else—and I mean *all* else—failed.

In 1981, St. Paul Fire and Marine decided to return to the field, and solicited customers among our Tennessee colleagues. They got some, too—some who let avarice cloud their judgment. St. Paul pointed out—correctly—that they had never cancelled a policy in Tennessee. What they did not point out was that they would write no new ones. There is nothing to prevent their pursuing that course again. They are a business, and businesses are seldom altruistic. In fact, stockholders take a very dim view of altruism except as a token. SVMIC, on the other hand, is our own, and will be with us always—unless our colleagues drive it out of business.

I point this out because last month St. Paul submitted an ad to this *Journal*, which we ran in the November issue, on advice by legal counsel that not to do so would be at best bad form and at worst illegally in restraint of trade. It is in here again this month.

"Poor Richard" pointed out that a word to the wise is sufficient. Be wise, then, and not avaricious. T.T.F.N.

J.B.T.

The Thrill and the Agony

A song popular some years back opened with the line, "Standing on the corner watching all the girls go by." I forget what followed, but a whole lot of things could. The girl watcher could go

home either with visions of sugar plums dancing in his head, or filled with frustration. His ogling could have landed him happily ensconced in a bar with one of the objects of his affection, or flat on his back on the pavement with an eye swollen shut, or neither. Standing on a corner affords at least the promise of involvement, even fulfillment. Now one can watch anything at all on the tube, including girls walking by with little or nothing between, but that affords no such promise.

Because they proved a bad investment, I gave up my football tickets a number of years ago, since I am frequently out of town or otherwise occupied, and I depend on charity to get me to a couple of games each year—which actually is about the right number. When I occasionally watch a game on TV I find I see a lot more there than I do in the stands. At a game the other day, for instance, when I would miss something I kept watching for an instant replay. (I note that at the pro games they do that for you, too.) TV is also the only way, at least around here, that you can watch a game and stay dry when it's raining, unless you happen to own an enclosed box, which is a heap more expensive. Again, though, somehow you miss the noise of the crowds and the profanity of the red-necks (who may be some of your best friends in other settings) behind you as they dig their knees into your back and drop popcorn (you keep hoping that's all they drop) down your neck. "Oh, take me out to the ball game, take me out with the crowd. . . ."

Though the commentators are generally all mouth, where I really appreciated TV insofar as sports are concerned was during the Olympics just past. A lot—or even most—of track and field events are deadly dull—even duller than baseball. The tube can switch back and forth so as to show you the high spots without your having to buy a hundred dollar ticket to see an event or so, and that not nearly so well, either. I'm sure it would have been exciting to have been on the scene to watch Scott Hamilton glide across the ice or Tracy Caulkins through the water. Even so, I'll bet I saw it more often, and I know I saw it from more angles, than any of those in attendance did, even with the help of the TV monitors, which abounded. I know I was more comfortable doing it, and I didn't have to struggle getting there and back.

I think things may have gotten too easy for us, and that somehow we'll be sorry. It's true a lot more people see a lot more things and are gen-

erally a lot more knowledgeable than they were—than we were—50 years ago. I was already a doctor and in the Army before I ever saw Beethoven's Glorious Ninth Symphony performed. It isn't a thing easily done, but now you can see it on TV maybe once or twice a year.

Since that first encounter I have sung Beethoven's Ninth with the Nashville Symphony Chorus and Orchestra. Now *there was* a thrill. And there's the difference. No matter where you watch from, it is not the same as participating. I didn't see a single spectator glow the way Tracy Caulkins did, even her parents, and even though winning should be old stuff for her by now. And happy as Bela Karolyi was for his pupil, Mary Lou Retton outshone him hands down.

Those were the winners, though. How about the losers? Well, most of them marched in the final parade, and they all looked happy to be there. All those who commented said they were. They went through a lot to get there, and they had that satisfaction, which is more than any spectator did, whether there or in front of the TV.

God could have said, "There's too much trouble down there. It's too messy. I think I'll stay home and watch." Did He? One day a couple of thousand years ago, on that first Christmas, He threw it all over and got involved. I needn't recite the story of His time down here, but it was grim, the Baby Jesus bit notwithstanding. A lot of people stood around and watched. If they had had them, most would doubtless have watched it on TV.

Most people are still just watching.

J.B.T.

Old Grads and New Medicine

A political science professor of my acquaintance, commenting on a recent TV talk show about activities of the CIA, with which he has been associated, observed that agents of the CIA and the Soviet KGB in reality form a sort of fraternity, in the sense that they need each other. Agents beget agents—the more you have the more they need, and vice versa. It is an interesting concept, but I had to wonder what a CIA operative and a KGB agent would find to share over a beer in a darkened cafe. Some fraternity!

Most people build up a store of small talk, and provided the conversation is not too protracted, can visit together for a while, at least more appropriately than a certain dedicated but introverted Oxford don I heard about who at a dinner in his honor found himself seated uncomfortably between two attractive ladies. Casting about for an opener, he said to the lady on his left, "Are you married?" to which she replied, "No." Quoth our don, "How many children do you have?" End of conversation. "I'll not make that mistake again," he thought, and queried the lady on his right, "How many children do you have?" "Four" she replied. In case you have not already guessed, he then said—yes, he really did (I was told): "Are you married?"

Reunions throw you with people you once knew well and with whom you had much in common. Paths diverge, and you find that sure enough you can't go back. One hesitates to ask, "How is Mary?" because one's memory may play him false and Mary might actually have been Jane. Or worse, Mary has been *replaced* by Jane, who may have in turn been replaced by Linda, and even she by Judy. One has to be careful. It helps if Mary is along, and ole Jim says, "I'm sure you remember (or *don't*, whichever is appropriate) my wife (it helps if he adds that) Mary (or Jane or Linda or Judy—again, whichever is appropriate)." You have to be careful in asking about children, too, as there may be more than one set. One must feel one's way *very* carefully if one has been out of touch for 40 years. You may find that the athlete who could beat you every time now has trouble walking across the street due to his emphysema, or he may be fat (maybe from taking steroids) or be missing a lung and a kidney. Your favorite trencherman may only pick at his food because he has no stomach left. Things change. After noting everything one needs to be careful about, one may quickly run out of conversation. So I found it at a recent college reunion.

On the other hand, when a class has suffered through medical school together, and many of them academic school before that and maybe a residency afterward, even after years of separation defenses come down rather quickly, and even though you still can't go back, it is *almost* possible to take up *almost* where you left off. Wives and non-medical friends complain that about all doctors talk about is medicine. It would be odd if it were otherwise. Unlike merchants, bankers, and so on—and I think attorneys, as well, though I don't know about them—medicine occupies a

doctor, either directly or indirectly, through pretty much all of his waking hours. Having just experienced a reunion of something over half of the surviving members of Vanderbilt's medical class of 1944, I found none of us had any problem in filling the weekend with good fellowship. Nevertheless, there were a few clouds on the horizon.

Though maybe in a sense spies are members of a fraternity, doctors are in fact. They were a fraternity on Cos more than two millenia ago, and have been ever since, even though, as with any family or fraternity, there have been black sheep. The profession has lived under a strict code of ethics, and generally has kept its armor bright. Now the boys with the dingy shields are insisting that we are in fact a trade, which any polishing we do of our escutcheons is in restraint of. Moreover, that notion has the weight of the law behind it.

Now, being *called* a trade is really no disaster—you know about "sticks and stones may break my bones," and so on. What is sad, though, is that some of our colleagues are acting as if they actually believe it. Worse, some even do believe it. In that are the seeds of medicine's undoing.

For the class of '44 this will not be a problem. Some are retired now (one has gone to farming), and most of us soon will be. Medicine will remain for us an honored profession, and as many as return at 45 and 50 years can reminisce about medicine as we knew it, when that is what it still was. What the younger ones will discuss I can't say—perhaps how "my billboard is bigger than your billboard," or "my PR man can lick your PR man."

I weep for them.

J.B.T.

On the Uses of Wisdom

"I, wisdom, dwell together with prudence;
I possess knowledge and discretion."

Proverbs 8:12

Like Janus, investigation looks in both directions, and in fact bears many faces, both good and evil. Necromancing and delving into the black arts, and even soothsaying or probing the future, have been interdicted by all of the world's great religions, yet since man is curious about the future, wanting to know all that God knows, they

have been widely practiced for millenia. On the other hand, legitimate research (I am assuming for purposes of this piece that such investigation as mentioned above is illegitimate) is the basis for all knowledge and advancement. The line between the legitimate and illegitimate is not always clear, and the outcome of even legitimate research is not always desirable. I am also assuming that the outcome of the other never is, since God forbids it, and any fruits of it are therefore bound to be as tainted as Eden's apple.

Scientific research gave us both nuclear energy and the atom bomb. Medical research has given us all manner of diagnostic and therapeutic opportunities, but it has also allowed us a look into genetic futures that bode ill for the patient without conferring commensurate succor; for example, the Huntington's chorea gene, which is uniformly lethal, is identifiable but not remediable. Science has also given us prophylaxis against some of mankind's severest scourges—diphtheria, pertussis, tetanus, measles, and so on. Whereas a host of children once died from diphtheria, the disease is now virtually unknown. Likewise, whooping cough, which through severe coughing paroxysms caused emphysema and cerebral hemorrhages with their variable sequelae, is seldom encountered today. Poliomyelitis, the bane of childhood, and even young adulthood, in my youth, is now an anachronism—all through immunization.

Everything exacts a price. Immunization is no exception. Transverse myelitis, encephalitis, Guillain-Barré paralysis are, among others, all possible sequelae.

Three years ago public television (PBS) aired a program about immunizations. Its sensationalization of the negative aspects, particularly with regard to pertussis vaccine, which had then been controversial for some time, frightened parents and led many to avoid immunizing their children. The litigiousness of society provoked a rash of lawsuits over adverse reactions, resulting in the withdrawal from the marketplace of one of the three largest manufacturers of the diphtheria-pertussis-tetanus (DPT) vaccine, with consequent shortages. Threats that the other manufacturers might join that one have been at least temporarily averted by conferences with the CDC and proposed legislative relief.

Whether the public needs to be informed of everything that goes on is a matter of opinion. The news media in this country think it does, and frequently go to excessive lengths in investigative

reporting to do it. This would not necessarily be bad if the reporting were always accurate and editors abjured sensationalism. In other countries, particularly the United Kingdom and Scandinavia, the news media are more discrete than the media here in their reporting. For example, the media have done untold damage to our nation's security by attacks on our counter-intelligence and investigative agencies under the guise of informing the public, when it is abundantly clear that the interests of the reporters are primarily personal advancement and recognition, and of the publishers to sell newspapers or attract listeners or viewers.

Though censorship is intolerable in a free society, and counterproductive anywhere, some sort of self-policing of the media with self-imposed restraint such as is practiced in Britain and Scandinavia seems highly desirable, even if it is only to avoid premature release of material. At the time PBS aired its program on immunization, for instance, the pertussis vaccine was still controversial, Britain having abandoned pertussis immunization altogether; after two serious pertussis epidemics, however, the program was reinstated. The harm done the immunization program in this country could have been averted had PBS simply delayed its report until all the results were in. This unfortunately is not the practice of the media in contemporary USA, which at times comes perilously close to yellow journalism.

After some major dislocations, due in no small part to the media's meddlesomeness, immunization programs throughout the country appear to be getting back on track. Despite its culpability, I doubt that PBS is repentant over or has learned anything from the episode. In fact, I suspect it would not acknowledge any transgression at all.

The responsibility of the news media to the public goes further than simply bringing it news, or even news with commentary. The media have a responsibility to consider the consequences of their actions. Such a consideration requires wisdom, which is in regrettably short supply in the news media, though so as not to be unfair to the media, I need to add that wisdom is no more lacking than anywhere else. It is only that since the media are in a position to do more damage than most, the need for wisdom and restraint is consequently greater, and its absence more visible. A plea of universal lack of wisdom, however, is no excuse for a shoddy product.

J.B.T.



Chinese Birth Control

To the Editor:

I feel we owe our thanks to Dr. Thomas Paine, Jr. for the lucid, erudite and uplifting *China Experience* reported in the October issue of the *Journal of the Tennessee Medical Association* (77:594-595, 1984). Apparently, the Chinese law: one child per family, has produced a facade of reformation. Unfortunately, I have on my desk a clipping from *Newsweek*, April 30, 1984, in reference to this same law. This discussion is also erudite but lurid and oppressive. Succinctly, when the first child is a son who will perpetuate the lineage, all may be well and good. The law: one child per family, leads to infanticide of female progeny and murder of daughters upon birth of the male sibling. Considering all, I prefer the American way—but conceding much, my prayer remains: Lord, help us all to find a better way.

Marvin G. Gregory, M.D.
300 25th Ave. North
Nashville, TN 37202



Julius Peter Dietrich, age 73. Died September 25, 1984. Graduate of Loma Linda University School of Medicine. Member of Warren County Medical Society.

Gilbert W. Pratt, age 39. Died October 2, 1984. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

new members

The JOURNAL takes this opportunity to welcome these new members to the Tennessee Medical Association.

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Suresh Enjeti, M.D., Chattanooga

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Robert O. Martin, M.D., Knoxville

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Barbara Chamberlin, M.D., Memphis
Thomas D. Greenwell, M.D., Memphis
Jeffery J. Ochs, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE

Michael S. Pippin, M.D., Nashville

SULLIVAN COUNTY MEDICAL SOCIETY

Samuel David Breeding, M.D., Kingsport

TMA Members Receive AMA Physician's Recognition Award

Fourteen TMA members qualified for the AMA Physician's Recognition Award during September 1984.

To qualify for the PRA, a minimum of 150 hours of continuing medical education must be earned over a three-year period; 60 of these hours must be Category 1.

This list does not include members who reside in other states. Names of additional PRA recipients will be published as they are received from AMA.

Jerome H. Abramson, M.D., Chattanooga
Thomas C. Delvaux, Jr., M.D., Nashville
Roy C. Ezell, M.D., Nashville
Harry Friedman, M.D., Memphis
Conrad L. Grabeel, M.D., Knoxville
Aurelio P. Inclan, M.D., Dyersburg
William J. Jekot, M.D., Murfreesboro
Kenneth T. Miller, Jr., M.D., Oak Ridge
Frances K. Patterson, M.D., Knoxville
Frank A. Perry, Jr., M.D., Nashville
Eddie J. Reddick, M.D., Nashville
Dan S. Sanders, III, M.D., Nashville
Lang Smith, M.D., Antioch
John E. Van Hooydonk, M.D., Nashville

personal news

Lemuel W. Diggs, M.D., Memphis, has been honored with the Humanitarian Award of St. Joseph Hospital, Memphis. The award, made annually for service to the mid-South, cited Dr. Diggs for his lifelong work on sickle cell disease, for establishing the first blood bank in the South, and for helping to establish St. Jude Children's Research Hospital.

Donald B. Gibson, Sr., M.D., Cleveland, has been inducted as a Fellow of the American Academy of Family Physicians.

Bergein F. Overholt, M.D., Knoxville, has been elected to a three-year term as a trustee of the American Society of Internal Medicine.

The following TMA members have been inducted as Fellows of the American Association of Cosmetic Surgeons: *Nelson E. Link, M.D.* and *Claude H. Crockett, Jr., M.D.*, both of Bristol.

announcements

CALENDAR OF MEETINGS

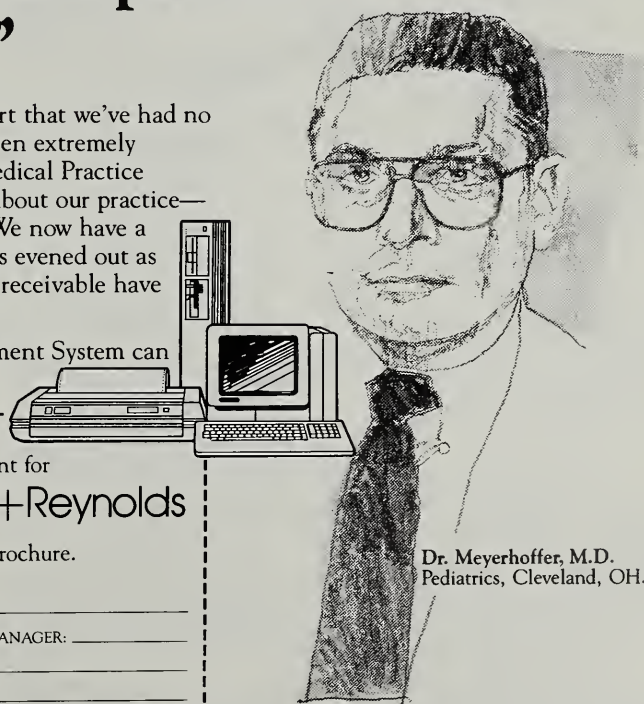
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Jan. 20-25	American College of Medical Imaging—High Sierra Hotel, S. Lake Tahoe, Nev.
Jan. 21-23	American Society for Surgery of the Hand—MGM Grand Hotel, Las Vegas
Jan. 24-29	American Academy of Orthopaedic Surgeons—Las Vegas Convention Center, Las Vegas
Feb. 1	American Association of Certified Allergists—Sheraton Bal Harbour, Bal Harbour, Fla.
Feb. 2-6	American College of Allergists—Sheraton Bal Harbour, Bal Harbour, Fla.
Feb. 6-9	Society of University Surgeons—Sheraton, Boston
Feb. 7-9	American Association for the Study of Headache—Camelback Inn, Scottsdale, Ariz.
Feb. 20-24	American College of Nuclear Physicians—Four Seasons, San Antonio, Tex.
Feb. 27-March 3	American Association of Orthopaedic Medicine—La Posada, Scottsdale, Ariz.

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 FOWLER, TOMMY S. MEMPHIS
 FRANCIS JR, HUGH, MEMPHIS
 FRANCISCO, JERRY THOS, MEMPHIS
 FRANKLIN, EDGAR R. MEMPHIS
 FRANKUM, CHAS EUGENE, MEMPHIS
 FREE, LOVELY ARZETTA, MEMPHIS
 FREEMAN, BARNEY LYNN, MEMPHIS
 FREEMAN, JERRE MINOR, MEMPHIS
 FRENCH, WM E. MEMPHIS
 FRIEDMAN, HARRY, MEMPHIS
 FUDGE, TOMMY L. MEMPHIS
 FUSTE, RICARDO R. MEMPHIS
 FUTRELL, THOMAS WALTER, MEMPHIS
 * GABERRY, EUGENE WAPNER, MEMPHIS
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 GALEYAN, JAMES R. MEMPHIS
 GALYON, JAMES THEODORE, MEMPHIS
 GAMMILL, STEPHEN LANE, MEMPHIS
 GANDHI, MANHAR C. MEMPHIS
 GANGULI, SANTASH K. MEMPHIS
 - GANT, LINDA LONG, MEMPHIS
 GARBARINI JR, JOS C. MEMPHIS
 GARDNER JR, LAWRENCE G. MEMPHIS
 GARDNER, JOHN HARVEY, MEMPHIS
 GARRETT, HARVEY E. MEMPHIS
 GARRETT, RICHARD HENRY, MEMPHIS
 * GAY, JAMES R. LAKEWOOD, PA
 GAYDEN, JOHN D. MEMPHIS
 GEHI, MOHAN M. MEMPHIS
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 GELFAND, MICHAEL S. MEMPHIS
 GEORGE, LEWIS WATSON, MEMPHIS
 GERALD, BARRY ELMO, MEMPHIS
 GESHKE, TERRENCE EDWARD, MEMPHIS
 GETTELFINGER, THOMAS C. MEMPHIS
 GILLULY, JOHN JOS, MEMPHIS
 GILTMAN, LARRY IRWIN, MEMPHIS
 GINN, BOBBY H. MEMPHIS
 * GISH, GEO EDWARD, MEMPHIS
 GIVENS, JAMES ROBT, MEMPHIS
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 - GLASS, JEFFREY T. MEMPHIS
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 GLOTZBACH, RAYMOND E. MEMPHIS
 GODSEY, WM COLE, MEMPHIS
 GOKTURK, TURGUT KEMAL, MEMPHIS
 GOLO, ROBERT E. MEMPHIS
 * GOLDBERG, FRED A. MEMPHIS
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 GOLDIN, MELVIN LESTER, MEMPHIS
 GNOCH, JERRY BURTON, MEMPHIS
 GOODMAN JR, THOMAS F. MEMPHIS
 GOODMAN, RALPH, MEMPHIS
 - GORDON, TIMOTHY EDWARD, MEMPHIS
 GORLINE, WILLIAM JAMES, MEMPHIS
 - GOSSAGE, DAVID L. MEMPHIS
 GOTTEN JR, NICHOLAS, MEMPHIS
 * GOTTEN, HENRY BRAGG, MEMPHIS
 * GOTTEN, NICHOLAS, MEMPHIS
 GOUPLEY, ROBT DUNSFITH, MEMPHIS
 GRAGG JR, WILFORD H. MEMPHIS
 GRANT, WM CRAIG, MEMPHIS
 GRATZ JR, JOHN FISHER, MEMPHIS
 GRAVES JR, LESTER R. MEMPHIS
 GREEN JR, JAMES BUTLER, MEMPHIS
 - GREENE JR, ROBERT W. MEMPHIS
 GRIFFIN, DANIEL EUGENE, MEMPHIS
 GRISE, JERRY WADE, MEMPHIS
 GROMMYER III, ALBERT JOS, MEMPHIS
 * GROMMYER JR, ALBERT JOS, MEMPHIS
 GROGAN JR, FRED T. MEMPHIS
 GROSS, CHAS WAYNE, MEMPHIS
 GROSSMAN, RONALD K. MEMPHIS
 GWIN, JOHN FRANKLIN, MEMPHIS
 HAGGITT, RODGER C. SEATTLE, WA
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 HAJGHASSEMAL, MEHRROOHT, MEMPHIS
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 HALFORD, JACK RICHARD, MEMPHIS
 - HALL, JAMES C. MEMPHIS
 - HALL, JOHNNIE CAMERON, MEMPHIS
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 * HALL, VONNIE ARTESIA, MEMPHIS
 HALL, MARGARET J A. MEMPHIS
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 HAMILTON, RALPH S. MEMPHIS
 HAMILTON, WM THOS, MEMPHIS
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 HANISSIAN, ARAM S. MEMPHIS
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 HAROY, F OLIVER, MEMPHIS
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 HARRINGTON, OSCAR B. MEMPHIS
 HARRIS, BUFORD TEXRELL, MEMPHIS
 HARRIS, JOHN JOEL, MEMPHIS
 - HARRIS, PAULA PILGRIM, MEMPHIS
 * HARWELL JR, CARL M. MEMPHIS
 HASEN JR, HOWARD H. MEMPHIS
 HASEN, HOWARD B. MEMPHIS
 HATCH JR, FRED E. MEMPHIS
 HAWKES, ALFRED KENNETH, MEMPHIS
 * HAWKES, C DOUGLAS, MEMPHIS
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 HAY, CYRIL LEON, MEMPHIS
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 HEAD, THOMAS GLENN, MEMPHIS
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 HELLMAN, MICHAEL D. MEMPHIS
 HENARD, DONALD CLAUDE, MEMPHIS
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 HERNON JR, BRUCE WAYNE, MEMPHIS
 HERRINGTON, CLARENCE G. MEMPHIS
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 HIGDON, DENNIS ALAN, MEMPHIS
 HIGGINBOTHAM, THOS WAYNE, MEMPHIS
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 HILL, FONTAINE S. MEMPHIS
 * HILL, JAMES MARK, MEMPHIS
 HILL, JOHN ROY, MEMPHIS
 HILSENBECK JR, JOHN ROBERT, MEMPHIS
 HINES, ELBERT EDWIN, MEMPHIS
 HINES, LEONARD HARVEY, MEMPHIS
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 HIXSON, SHERMAN D. MEMPHIS
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 HOLLABAUGH, ROBT STERLING, MEMPHIS
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 HOLLIDAY, THOS LINTON, MEMPHIS
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 - HOLLY, HOWARD RHEA, MEMPHIS
 * HOLMES, JAMES ELMORE, MEMPHIS
 HOLMES, JOHN PIERCE, MEMPHIS
 HOLMES, PERRY DON, MEMPHIS
 HOLT, EDWIN M. MEMPHIS
 HOLT, HUEY THOS, MEMPHIS
 HOOD, STEPHEN THOS, MEMPHIS
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 HORTON, GLENN EDWARD, MEMPHIS

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HOWSER, JOHN PATTON, MEMPHIS
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* HUGHES, JOHN DAVIS, MEMPHIS
* HUGHES, MAX, MEMPHIS
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JAPRED, LUIS KATHERINE, MEMPHIS
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JENNINGS, DAVID KEITH, MEMPHIS
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JERKINS, GERALD RAY, MEMPHIS
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JONES, WESLEY EARL, MEMPHIS
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KANG, ANDREW HO, MEMPHIS
KAPLAN, EDWARD STEVEN, MEMPHIS
KAPLAN, JEPHY, MEMPHIS
KAPLAN, ROBT JOEL, MEMPHIS
KAPLAN, STANLEY BARUCH, MEMPHIS
KAPUR, HAKI S, MEMPHIS
KAPKERA, MOHANDAS S, MEMPHIS
KASSEES WAHID, LAILA, MEMPHIS
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KELLEY, BUDDY JERALD, MEMPHIS
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KELLY, RICHARD T, MEMPHIS
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KEPLAN, ROBT ASHLEY, MEMPHIS
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KHANDEKAR, SOPHIA HAQUE, MEMPHIS
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KIMBALL, NOAH SPADEN, MEMPHIS
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* KING, JOHN C, MEMPHIS
KING, WILLIAM SCOTT, MEMPHIS
KINGTON, JOHN MICHAEL, MEMPHIS
- KIRK, MARIAM MARTIN, MEMPHIS
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KIRKLEY, JOHN BEAUCHAMP, JONESBORO, AR
KIRKPATRICK, ROBT DEAN, MEMPHIS
KISABETH, ROBERT M, MEMPHIS
KISBER, RICHARD H, MEMPHIS
KITABCHI, ARBAS EGBAL, MEMPHIS
KLEIER JR, ERNEST BOBBY, MEMPHIS
KLINE, ROBT PAUL, MEMPHIS
* KLOTZ, WM F, MEMPHIS
KNIGHT, WILLIAM W, MEMPHIS
KNOTT, DAVID HOWARD, MEMPHIS
KNOWLES, JENNIFER S, MEMPHIS
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KNOX, ROBT L, MEMPHIS
KOLEYNI, ASGHAR, MEMPHIS
KNIGGSBERG JR, CHARLES, FT LAUDERDALE, FL
KOONCE, MARSHALL LYNN, MEMPHIS
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* KPAUS, ALFRED PAUL, MEMPHIS
KRAUS, MELVIN M, MEMPHIS
KPAUS, ROBERT M, MEMPHIS
- KRUEGEL, DREW A, MEMPHIS
KRISLE JR, JOE RICHARD, MEMPHIS
KROETZ, ERANK W, MEMPHIS
KRONENBERG, JOEL I, MEMPHIS
KULP, ROY, MEMPHIS
- KURTZ, BRYAN R, MEMPHIS
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* KUYKENOALL, GARY M, MEMPHIS
KYLE, JDS LAWREN, MEMPHIS
- LABONT, ROGER S, MEMPHIS
LAMAR JR, LUCIUS M, MEMPHIS
LAND, MACK A, MEMPHIS
LANDSEE, CARL GEO, MILLINGTON
LANGFORD JR, C THOMAS, MEMPHIS
LANGSTON, JAMES WILSON, MEMPHIS
LANKFORD, AM ALEXANDER, MEMPHIS
LARIMER, PERRY JAMES, MEMPHIS
LARKIN, CHARLES NEWTON, GERMANTOWN
LASTER JR, ROBT EUGENE, MEMPHIS
LATHAM JR, MARVIN W, MEMPHIS
LAUGHLIN JR, ALBERT E, MEMPHIS
* LAUGHLIN SP, ALBERT E, MEMPHIS
LAVELLE JR, HERMAN G, MEMPHIS
LAWRENCE, JESSE ALVAN, MEMPHIS
LAWSON, ROBT EDWARD, MEMPHIS
LAWSON, RONALD D, MEMPHIS
LAZAR, EDWARD HARRY, MEMPHIS
LEBOVITZ, M A, MEMPHIS
LEE, LING HONG, MEMPHIS
- LEE, WILLIAM L, MEMPHIS
* LEFKOVITS, AARON M, MEMPHIS
LEMMI, HELIO, MEMPHIS
- LEONOS, MIKE EDWARD, MEMPHIS
LEUNG, RICHARD YIN FOOK, MEMPHIS
LEVINSON, MICHAEL JAY, MEMPHIS
LEVITCH, MELVYN ABRAHAM, MEMPHIS
LEVY, JOE S, MEMPHIS
LEWIS, MYRON, MEMPHIS
* LEWIS, PHILIP M, MEMPHIS
LIEBERMAN, GERARD J, MEMPHIS
LIEBERMAN, PHILLIP LOUIS, MEMPHIS
LINDER, HILARY FRANCIS, MEMPHIS
LINDEPUTH, JOHN R, MEMPHIS
LING, FRANK W, MEMPHIS
LIPSCOMB, ALYX H, MEMPHIS
LIPSEY, GEO GARTLEY, MEMPHIS
LITCH JR, MELVIN, MEMPHIS
LITTLE JR, WM ROBT, MEMPHIS
* LIVEKMORE JR, GEO A, MEMPHIS
* LOCKWOOD JR, JUDLEY G, HERNANDO, MS
- LONDON, JERRY FRANK, TOLSON, MD
* LONG, CHAS EDWARD, MEMPHIS
LONG, DIANE M, MEMPHIS
LONG, THOMAS E, MEMPHIS
LONG, WILLIAM E, MEMPHIS
LONGHEED, JOS C, MEMPHIS
LOVE, VARN AAF PEYTON, MEMPHIS
LOVEJOY, GEO S, MEMPHIS
LOVING, MARTHA A, MEMPHIS
LOWERY, JEFFERY H, MEMPHIS
LUTHER, ROBT WAYNE, MEMPHIS
- LYNCH, CECIL ODELL, MEMPHIS
LYNCH, MICHAEL HARDY, MEMPHIS
MARRY JR, EDWARD HAYS, MEMPHIS
MABBY, EDWARD HAYS, MEMPHIS
MACHIN, JAMES ELLIOTT, MEMPHIS
MACKAY, AM FREDERICK, MEMPHIS
MAODOUX JR, H BENJAMIN, MEMPHIS
MAODOUX, HOLT BENJ, MEMPHIS
MAOUSKA, ALBERT LOWELL, MEMPHIS
MAGILL, HURET LYNN, MEMPHIS
* MAGUDA, THOS ANDREW, VENICE, FL
MAGUIKE, JAMES K, MEMPHIS
MAHESH-KUMAR, A P, MEMPHIS
MAIJUB, AMAOD GABRIEL, MEMPHIS
* MALONE II, WM A, MEMPHIS
MANOELL, ALAN I, MEMPHIS
MANGIANTE, EUGENE C, MEMPHIS
MANKIN, JOHN C, MEMPHIS
MANN, JAMES ALAN, MEMPHIS
MANUGIAN, ARSEN, MEMPHIS
MAROUD, RIAU M, MEMPHIS
MARPIENHECK, AM IRVIN, MEMPHIS
MARPER, HOWARD WM, MEMPHIS
* MARKLE, PHILIP METRIC, MEMPHIS
MARSHALL, DANIEL P, MEMPHIS
MARSHALL, MICHAEL RALPH, MEMPHIS
* MARTEN, GEO A, MEMPHIS
MARTIN, DANIEL C, MEMPHIS
MARTIN, ROY WAYNE, MEMPHIS
* MASON, WM W, HIGHLAND, NC
- MASSENGILL, JAMES KEVIN, MEMPHIS
MASSIE, JAMES D, MEMPHIS
MATHES, GORDON LAWRENCE, MEMPHIS
* MATTHEWS, OLIVER S, MEMPHIS
* MAURY JR, WM P, MEMPHIS
MAYER, RAYMOND FRANKLIN, MEMPHIS
MAYFIELD, LEROY H, MEMPHIS
MAYS, KIT SANFORD, MEMPHIS
MCAEER, JAMES EARL, MEMPHIS
MCBURNERY, ROBERT POWERS, MEMPHIS
* MCCALL, JOHN WILLIAM, MEMPHIS
MCCARTER JR, JOHN G, MEMPHIS
MCCAUGHAN JR, JOHN JOE, MEMPHIS
MCCLOY, RANDOLPH M, MEMPHIS
MCCLOURE, JAMES G, MEMPHIS
* MCCOOL, D C, MEMPHIS
MCCORMACK, HAROLD ARTHUR, MEMPHIS
* MCCUBBIN, JACK H, TEXARKANSAS, TX
* MCDANIEL, E F, MEMPHIS
- MCCONALD JR, ROBERT E, MEMPHIS
MCCONALD, MARTHA A, MEMPHIS
MCCOWAN JR, ROBERT C, MEMPHIS
- MCGEE, JAMES WAYNE, MEMPHIS
MCGEE, JESSE EDWARD, MEMPHIS
MCGEE, JOHN LAWRENCE, MEMPHIS
MCGREW III, FRANK A, MEMPHIS
MCINTYRE, REBECCA P, MEMPHIS
MCKENZIE, EUGENE EATON, MEMPHIS
* MCKINNEY, JAMES W, MEMPHIS
- MCKNIGHT, DONALD T, MEMPHIS
MCCLARTY, ALEXANDER M, MEMPHIS
MCCLARTY, BARNEY ESTES, MEMPHIS
MCCLAUGHLIN, RANDY KEITH, MEMPHIS
MCLEHOPE JR, THOMAS E, MEMPHIS
MCSWAIN, HAROLD A, MEMPHIS
MENES, JAMES KEITH, MEMPHIS
MERGER, CHARLES WAYNE, MEMPHIS
MERIWETHER III, THOS W, MEMPHIS
METZGER, AM EDGAR, MEMPHIS
MEYER, DAVID, MEMPHIS
MILES, ROBT WILLIAM, MEMPHIS
MILFORD JR, LEE WATSON, MEMPHIS
MILLER JR, GEORGE L, MEMPHIS
* MILLER, FUUNTAIN FOX, MEMPHIS
* MILLER, HAROLD RAY, MEMPHIS
MILLER, JOE HARDY, MEMPHIS
MILLER, JOSEPH RAYARD, MEMPHIS
* MILLER, RICHARD ALVAN, MEMPHIS
MILLER, RICHARD A, MEMPHIS
MILLER, RICHARD O, WEST MEMPHIS, AR
* MILLER, RICHARD WALLACE, MEMPHIS
MILLER, THOMAS IVA, MEMPHIS
- MILLS, JAMES MICHAEL, MEMPHIS
MILLS, GEO T, MEMPHIS
MILNOR JR, J PERVIS, MEMPHIS
MINKIN, IRVING C, MEMPHIS
MIRVIS, DAVID MAC, MEMPHIS
- MITCHELL, JOHN ALBERT, MEMPHIS
- MITCHELL, NANCY A, MEMPHIS
MITCHELL, AM KUNSON, MEMPHIS
* MOBLEY, EVERETT C, MEMPHIS
* MOBLEY JR, BENJ A, EADS
MOFFATT III, WILLIAM LEE, MEMPHIS
MOFFATT JR, AM LEE, MEMPHIS
* MORGAN, EDWARD NENON, GERMANTOWN
* MOINUODIN, MUHAMMED, MEMPHIS
MOINUODIN, SAADIN, MEMPHIS
MOLINSKI, EDWARD M, MEMPHIS
MONAGHAN, THOMAS W, MEMPHIS
MONGER JR, RALPH HORACE, MEMPHIS
MONTGOMERY, JAMES H, MEMPHIS
MOORE JR, FONTAINE A, MEMPHIS
* MOORE JR, MIKE, MEMPHIS
MOORE, DAVID F, MEMPHIS
MOORE, JAMES A, MEMPHIS
MOORE, MARION ROBERTSON, MEMPHIS
- MOORE, WILLIAM H, MEMPHIS
MORETZ JR, WILLIAM HENRY, MEMPHIS
MORPIS, JOHN THOS, MEMPHIS
MORPIS, AM RANDOLPH, MEMPHIS
MORPISON, LARRY HURT, MEMPHIS
MORSE, WM HAL, MEMPHIS
MOUSEP, DAVID O, MEMPHIS
MOSHIER, AM HILL, MEMPHIS
MOSKOVITZ, DONALD J, MEMPHIS
MOSS, JOHN PALMER, MEMPHIS
* MOSS, THOS CHESTER, MEMPHIS
MOSS, WM BENJ, MEMPHIS
MOTLEY, THOMAS EARL, MEMPHIS
MOUSTAFAS, SALAM, MEMPHIS
MURHEAD, ERNEST ERIC, MEMPHIS
MURDOCK, WADE THOS, MEMPHIS
* MURPHEY, FRANCIS, NAPLES, FL
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MURPHY, CYNTHIA DARNLEY, MEMPHIS
MURPHY, JAMES GARNETT, MEMPHIS
MURPHY, PATRICK J, MEMPHIS
MURPHY, WALTER HENRY, MEMPHIS
MURRAY JR, WM FITZHUGH, MEMPHIS
MURRAY, IAN FARRELL, MEMPHIS
MYERS, WM STANLEY, MEMPHIS
NADEL, ALAN MARC, MEMPHIS
NAG, SUBIR K, MEMPHIS
- NANNY, JAMES MICHAEL, MEMPHIS
NARAYANAN, MANOJ, MEMPHIS
NASH, JOHN PAUL, MEMPHIS
* NAUMANN, HANS S, MEMPHIS
NAWANE, KAYS, MEMPHIS
- NEASE, H HOWARD, MEMPHIS
NEELY JR, CHAS LEA, MEMPHIS
- NETHERLAND, DONALD EARL, MEMPHIS
NEWMAN, LARRY BEYARD, MEMPHIS
- NGUYEN, HOA, MEMPHIS
NICHOLS, THOS WOODELL, MEMPHIS
- NICHOLS, TRENT L, MEMPHIS
NICHOPoulos, GEORGE C, MEMPHIS
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NIKOLOVSKI, OLIVER T, MEMPHIS
NOBLES JR, EUGENE ROOMAN, MEMPHIS
NOE, HORACE NURMAN, MEMPHIS
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NORTH, WM C, MEMPHIS
NORTHERN JR, WM L, MEMPHIS

NUSSBAUMER III, DAVID P, MEMPHIS
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 O'SULLIVAN, PATRICK JOS, MEMPHIS
 OGLE, EVELYN M BASSI, MEMPHIS
 * OGLE, WM SANDERS, MEMPHIS
 OGLESBY, CLAUDE DUNN, MEMPHIS
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 OKRAH, AMOS, MEMPHIS
 * OLIM, CHAS BURTON, MEMPHIS
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 * ORMAN, JOS COOKE, MEMPHIS
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 OSBORN, FRANK JACKSON, MEMPHIS
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 OSWALD, WM J, MEMPHIS
 OUTLAN, JOHN EDWARD, COLLIERSVILLE
 OUTLAN, WILLIAM F, COLLIERSVILLE
 OWENS, DONALD D, MEMPHIS
 OWENS, JAMES HARVEY, MEMPHIS
 - OWENS, SCOTT E, MEMPHIS
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 PAGE, GENE RUFFNER, MEMPHIS
 PAGE, ROY CALVIN, MEMPHIS
 PAIDIPALLI, BABU RAD, MEMPHIS
 PAINTER, MAX WESLEY, MEMPHIS
 PALMER IV, ROBERT E, MEMPHIS
 PALMIERI, GENARO MIGUEL A, MEMPHIS
 PARKER, JUS, MEMPHIS
 PARKS, FRANK D, MEMPHIS
 PARRISH, RICHARD E, DAK RIDGE
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 PATTERSON III, RUSSELL H, MEMPHIS
 PATTERSON JR, RUSSELL H, MEMPHIS
 PATTERSON, CHARLES RICHARD, MEMPHIS
 PATTERSON, KELLY, MEMPHIS
 - PATTERSON, LARRY, MEMPHIS
 PATTERSON, RUSHTON EUGENE, MEMPHIS
 PATTERSON, SAM POLK, MEMPHIS
 PATTERSON, STANLEY MARTIN, MEMPHIS
 PAUL, RAPHAEL NATHAN, MEMPHIS
 PAYNE JR, EARNEST A, MEMPHIS
 PEARSON, RICHARD MCQUISTON, MEMPHIS
 PEDIGO, PHILLIP ADLER, MEMPHIS
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 PELZ, FREDERICK, MEMPHIS
 PENNER JR, JOHN VINCENT, MEMPHIS
 - PENDERGRASS, LANDON BOYD, MEMPHIS
 PERRY, EDGAR EMMICH, MEMPHIS
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 PETTIT JR, PAUL NESMITH, WEST MEMPHIS, AR
 PHELPS, WM CHAS, MEMPHIS
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 ANDERSON, EDWARD EUGENE, NASHVILLE
 ANDERSON, EDWIN H, NASHVILLE
 • ANDERSON, ELBRIDGE E, NASHVILLE
 ANDERSON, H R, NASHVILLE
 ANDERSON, JEAN W, NASHVILLE
 - ANDERSON, PHILIP ARADLY, NASHVILLE
 ANDERSON, ROBT S, NASHVILLE
 ANDERSON, WM CLYDE, NASHVILLE
 ANDREWS, GEO WILSON, BRENTWOOD
 ARENDALF JR, CHARLES R, NASHVILLE
 ARENDALL II, REX E, NASHVILLE
 ARNETT, DARRELL G, NASHVILLE
 ARNOLD, FREDRICK S, NASHVILLE
 ARNOLD, LARRY TOTTIE, NASHVILLE
 ARROWSMITH, PETER NOEL, NASHVILLE
 ASHER, HARVEY, NASHVILLE
 ATHAR, ZILLUR RAHMAN, GOODLETTSVILLE
 AVANT, GEO RAY, NASHVILLE
 AVERBUCH, MARK STEPHEN, NASHVILLE
 AVERY, JAMES KELLEY, BRENTWOOD
 BACKUS, ELIZABETH MAUREEN, NASHVILLE
 BAER, HARRY, NASHVILLE
 BAKER, THURMAN DEE, NASHVILLE
 BALDWIN, JAMES MAXVIN, ASHLAND CITY
 BALFOUR, M KIAN, NASHVILLE
 - BALLARD, JEFFREY LAWRENCE, NASHVILLE
 • BALLARD, SIDNEY W, FRANKLIN
 BALLINGER, JEANNE F, NASHVILLE
 BAN, THOMAS A, NASHVILLE
 BANDY, PRESTON H, NASHVILLE
 - BANKS, CHARLES G, NASHVILLE
 BARKER, DONALD F, NASHVILLE
 • BARKSDALE, EDWARD H, NASHVILLE
 BARNES JR, MAURICE C, NASHVILLE
 BARNETT, DONALD R, NASHVILLE
 BARNETT, PAUL HAROLD, NASHVILLE
 BARNETT, ROBT BURTON, NASHVILLE
 BARTON, DAVID, NASHVILLE
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 BATCHELOR, E DALE, NASHVILLE
 BATSON, JACK MILLER, NASHVILLE
 BATSON, RANDOLPH, TROY, AL
 • BAYER, O SCOTT, NASHVILLE
 BEAZLEY JR, LUTHER A, NASHVILLE
 BECK, CHAS BERNARD, MADISON
 BECK, LARSON DALE, MADISON
 BEELER, RICHARD T, NASHVILLE
 BELDEN, RICHARD A, NASHVILLE
 BELL, ROBT LE ROY, NASHVILLE
 BENDER JR, HARVEY W, NASHVILLE
 BENOT, ROBERT RICHARD, NASHVILLE
 • BENNETT, LYNCH O, NASHVILLE
 BENNING, THOMAS R, NASHVILLE
 BENSON, GEORGE N, NASHVILLE
 • BENZ, EDMUND WOODWARD, NASHVILLE
 BERMAN, M LAWRENCE, NASHVILLE
 BERNARD, LOUIS J, NASHVILLE
 BERNARD, STANLEY, NASHVILLE
 BERNSTORF, ROBERT C, NASHVILLE
 BERRIE, WARREN R, NASHVILLE
 BERRY, GEOFFREY, NASHVILLE
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 • BILLIG, OTTO, NASHVILLE
 • BILLINGS JR, FREDERIC T, NASHVILLE
 BINKLEY JR, WILLIAM JOSEPH, MADISON
 BIRDWELL, BEN JASON, NASHVILLE
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 BISHOP, LINDSAY K, NASHVILLE

BISHOP, MICHAEL ROBT, NASHVILLE
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 BODNER, STANLEY JACOB, HERMITAGE
 BODHM, FRANK HENRY, NASHVILLE
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 BOMROY JR, JAMES D, NASHVILLE
 BOND, ARTHUR GERNT, NASHVILLE
 BOND, JOHN BENJ, NASHVILLE
 BONDURANT, SIDNEY W, NASHVILLE
 BONE, ROBERT CARVER, NASHVILLE
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 BOOTH JR, GLENN H, NASHVILLE
 - BOSWELL, GILBERT E, NASHVILLE
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 BOWERS JR, DAVID GARWOOD, NASHVILLE
 BOYD JR, AM JOS, NASHVILLE
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 BRACKIN JR, HENRY B, NASHVILLE
 * BRADLEY, CLOYCE F, NASHVILLE
 * BRADLEY, G HEAPN, NASHVILLE
 BRACEFIELD, JAMES MARION, NASHVILLE
 BRAKEN, H VICTOR, NASHVILLE
 BREINIG, JOHN BOYERS, NASHVILLE
 BRENNAN, RHONDA KAY, NASHVILLE
 BRENNER, DEAN E, NASHVILLE
 BRESSMAN, PHILLIP L, NASHVILLE
 BRIGHAM, KENNETH L, NASHVILLE
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 * BRITTINGHAM, THOMAS E, FORT WORTH, TX
 BROCK III, JOHN A, NASHVILLE
 BROOKS, ARTHUR L, NASHVILLE
 BROOKES, LLOYD RUOY, MADISON
 BROTHERS, JOHN CUNNINGHAM, NASHVILLE
 BROWN JR, WALTER EDWARD, SPRING HILL
 BROWN JR, WALTER U, NASHVILLE
 BROWN, DOUGLAS H, NASHVILLE
 BROWN, KERMIT R, NASHVILLE
 BROWN, PHILLIP PENDELTON, NASHVILLE
 BROWNE, EDWARD W, NASHVILLE
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 BRUND III, JOHN, NASHVILLE
 * BRYAN, JOHN T, NASHVILLE
 BRYANT, DEBORAH MOBLEY, NASHVILLE
 BRYANT, JAMES DAVID, ANTIOCH
 BRYANT, SUSAN H, NASHVILLE
 BRYSON, G KEITH, NASHVILLE
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 BUCHANAN, RICHARD DURR, NASHVILLE
 BUCKSPAN, GLENN S, NASHVILLE
 BUEND, REUBEN A, NASHVILLE
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 BURKHALTER, MICHAEL TERRY, NASHVILLE
 BURKS, HELEN C, HENDERSONVILLE
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 - BURNETTE JR, WILLIAM C, NASHVILLE
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 BURR, IAN MEADOWS, NASHVILLE
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 BURRUS, GEO KURT, NASHVILLE
 BURRUS, ROGER BYRON, NASHVILLE
 - BUTTERFIELD, MARY JANE, NASHVILLE
 BYRD JR, BENJ F, NASHVILLE
 CADENA-CUCTA, GUILLERMO, NASHVILLE
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 CALHOUN, CALVIN LEE, NASHVILLE
 CALLAWAY, JAMES J, NASHVILLE
 - CALLOWAY, THOMAS, NASHVILLE
 CAMPBELL, THOMAS W, NASHVILLE
 CAMPBELL, W BARTON, NASHVILLE
 CANALE JR, DANIEL D, NASHVILLE
 * CANNON II, RICHARD D, NASHVILLE
 CANNON JR, CHARLES GRADY, NASHVILLE
 CAPLE SR, PHILLIP M, NASHVILLE
 CARD, WM JUDSON, MADISON
 CARLSEN, ANDREW B, NASHVILLE
 CARLSON, BRIAN RICHARD, MT JULIET
 CARNEY JR, SAM W, MADISON
 CARPENTER JR, GEO KENDON, NASHVILLE
 CARROLL, FRANK E, NASHVILLE
 CARTER, OSCAR WILLIS, NASHVILLE
 CARTWRIGHT, PETE S, NASHVILLE
 CASSELL, NORMAN M, NASHVILLE
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 CATE, RONALD C, NASHVILLE
 CATO, JAMES ROBERT, NASHVILLE
 * CAYCE, LEE F, NASHVILLE
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 CHATHAM, WALTER WINN, NASHVILLE
 CHAZEN, ERIC MARTIN, NASHVILLE
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 CLASSEN, KENNETH LEON, MADISON
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 COHEN, ALAN GARY, NASHVILLE
 COKER, WESLEY LOUIS, NASHVILLE
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 CONNOR, DAN E, NASHVILLE
 COOK, WILLIAM A, HOUSTON, TX
 COOKE, GEO EDWARD, NASHVILLE
 COOPER, ROBERT S, NASHVILLE
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 CORBIN JR, CHARLES, NASHVILLE
 CORNEY, ROBT TYLER, NASHVILLE
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 COULAM, CRAIG M, NASHVILLE
 - COUSSENS, DAVID M, NASHVILLE
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 CRAFTON, GEO B, NASHVILLE
 CRANE, JOS MICHAEL, MADISON
 CRANE, PAUL SHIELDS, NASHVILLE
 CRECRAFT, HAROLD JAMES, NASHVILLE
 CRENSHAW, RANDALL W, BRENTWOOD
 CRENSHAW, WM HRYANT, NASHVILLE
 CROOK, ANGUS M G, NASHVILLE
 CROOK, JERRALL PAUL, NASHVILLE
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 - CULLOM JR, R DOUGLAS, NASHVILLE
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 DANIELS, CHARLES W, NASHVILLE
 DAD, AMH HOO, NASHVILLE
 * DABBY, WM JEFFERSON, NASHVILLE
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 DAVIS, CARLA SUZANNE M, NASHVILLE
 * DAVIS, EVELYN J, BRENTWOOD
 DAVIS, GEO WM, NASHVILLE
 DAVIS, IVAN R, NASHVILLE
 DAVIS, J LUCIAN, NASHVILLE
 DAVIS, MICHAEL DAVID, NASHVILLE
 DAVIS, RICHARD JOHN, NASHVILLE
 * DAVIS, THEODORE A, NASHVILLE
 DAVIS, WM GRAY, MADISON
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 DEAN, RICHARD HENRY, NASHVILLE
 DEASON, DEBORAH K, NASHVILLE
 DELVAUX JR, THOS C, NASHVILLE
 DENNISON JR, HAROLD CLAY, NASHVILLE
 DICKINSON, CHRISTINE Z, NASHVILLE
 DIGGS, JOSEPH, NASHVILLE
 DILLARD JR, SAM HENRY, NASHVILLE
 DIXON JR, JOHN H, NASHVILLE
 DOKAK, WM MELVILLE, DONELSON
 DODD, ROBERT T, NASHVILLE
 DONALD, WM D, NASHVILLE
 DONNELL, MARK L, MADISON
 DORPP, ALAN C, NASHVILLE
 * DORRIS, EARL DENTON, NASHVILLE
 DODS, W GORDON, HENDERSONVILLE
 DOSTER JR, ROBERT T, NASHVILLE
 * DOUGLASS, HENRY L, NASHVILLE
 DOODY, SUZANNE, NASHVILLE
 DOWNEY, WM LEE, NASHVILLE
 * DOWNS, HOWARD S, MADISON
 DOYLE, DEBORAH P, NASHVILLE
 DOYNE, MARK ALAN, NASHVILLE
 DOZIER JR, J ENNETT, NASHVILLE
 DRIVER JR, L ROWE, NASHVILLE
 DUBUISSON, RAY L, NASHVILLE
 DUOLEY, B STEPHEN, NASHVILLE
 DUFFY, KAREN BARR, MADISON
 DUNBAR, LAURA L, NASHVILLE
 DUNCAN, GARY WM, NASHVILLE
 DUNCAN, GEO E, NASHVILLE
 DUNCAN, THOMAS C, NASHVILLE
 DUNDON, MARY CATHERINE, HENDERSONVILLE
 DUNKERLEY JR, ROBT C, NASHVILLE
 DUNN, GEO DEWEY, NASHVILLE
 DUTTON, WM PATTERSON, NASHVILLE
 DYER, DAVID M, NASHVILLE
 DYER, ERIC L, NASHVILLE
 ECKSTEIN, CHARLES W, NASHVILLE
 EDGAR SR, ANDREW S, NASHVILLE
 EDWARDS JR, WILLIAM H, NASHVILLE
 EDWARDS, DORAN DEVON, NASHVILLE
 EDWARDS, JOE MICHAEL, NASHVILLE
 EDWARDS, ROBT HARVEY, NASHVILLE
 EDWARDS, WM H, NASHVILLE
 - EHRENFRIED, RETH A, NASHVILLE
 ELAM III, ROY OSCAR, NASHVILLE
 ELAM, LLOYD CHAS, NASHVILLE
 ELLIOTT, JAMES H, NASHVILLE
 * ELLIOTT, PHILIP C, NASHVILLE
 ELLIS, JAMES W, NASHVILLE
 ELLIS, MICHAEL C, MADISON
 ELROD, BURTON F, NASHVILLE
 ELSON, MELVIN LESLIE, NASHVILLE
 EMERSON, CLIFTON W, NASHVILLE
 ENTMAN, STEPHEN S, NASHVILLE
 EPSTEIN, SHELDON M, NASHVILLE
 - ERMAN, RUSS D, NASHVILLE
 ERYASA, YILMAZ, NASHVILLE
 ESCOBAR, ALFONSO, NASHVILLE
 ESKINO, IRWIN BERNAPO, NASHVILLE
 ESKINO, STEVEN J, NASHVILLE
 ESTES, ROBERT L, NASHVILLE
 EVANS, HILLIS FLOREN, MADISON
 EWERS, E WILLIAM, NASHVILLE
 * EYLER, DON L, SALEM, AL
 EZELL, ROY CLAY, NASHVILLE
 FAGER, ROBT BRANCH, NASHVILLE
 FAKHRUDDIN, A K M, GODDOLLETSVILLE
 FALK, LESLIE ALLINA, NASHVILLE
 FARRAR, THOMAS CROWELL, NASHVILLE
 FARRAR, WM TAYLOR, NASHVILLE
 FARRINGER JR, JOHN LEE, NASHVILLE
 * FARRIS, WILLIAM B, PRADENTON, FL
 FAULK JR, WALLACE H, NASHVILLE
 FAULKNER, CHAS TAYLOR, NASHVILLE
 - FAULKNER, LEE A, NASHVILLE
 FELCH, JAMES A, FRANKLIN
 FELDMAN, RICHARD WARREN, NASHVILLE
 FELTS, PHILIP W, NASHVILLE
 FELTS, STEPHEN KAREY, HERMITAGE
 FEMAN, STEPHEN S, NASHVILLE
 FENICHEL, GERALD MERVIN, NASHVILLE
 FERGUSON, HAROLD AUSTIN, NASHVILLE
 FERTMAN, STEPHANIE LYNE, NASHVILLE
 * FESSEY, RAY J, NASHVILLE
 * FIDELHOLTZ, JACOB NORMAN, NASHVILLE
 FIELDS, JAMES P, NASHVILLE
 FIELDS, JOHN PERSHING, NASHVILLE
 FINCH, WILLIAM TYREE, NASHVILLE
 FINK, GARY ELIOT, NASHVILLE
 FINKE, FREDERICK LEROY, NASHVILLE
 * FINKS, ROBT MARK, NASHVILLE
 FISHER, JOE H, NASHVILLE
 FISHER, BENJ, NASHVILLE
 * FISHER, LAURA M, GALLATIN
 * FITZWATER JR, JAMES E, SAN FRANCISCO, CA
 FLEET JR, WILLIAM F, GODDOLLETSVILLE
 FLEISCHER, ARTHUR C, NASHVILLE
 FLEMING JR, JAMES H, NASHVILLE
 FLEMING JR, ROSS, NASHVILLE
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 FORDMAN, HOWARD R, NASHVILLE
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 FOSTER, HENRY ANDRELL, NASHVILLE
 * FOSTER, JOHN H, NASHVILLE
 FOSTER, NELSON RAY, FRANKLIN
 FOWINKLE, EUGENE WESLEY, NASHVILLE
 * FOWLER, SAML B, NASHVILLE
 * FRANCE, RICHARD, NASHVILLE
 - FRANCIS III, HUGH, DALLAS, TX
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 FREDERICKSEN, RAND TERKELL, NASHVILLE
 FREEMAN, RUFUS JACK, NASHVILLE
 FRENCHMAN, KHUSHRU H, HENDERSONVILLE
 FREY, WALTER WILLIS, NASHVILLE
 FRIODELL, THOS JAMES, NASHVILLE
 FRIESINGER, GOTTLIP C, NASHVILLE
 FRIST JR, JOHN C, NASHVILLE
 FRIST, ROBT ARMISTEAD, NASHVILLE
 * FRIST, THOS F, NASHVILLE
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 * GARDNER, CHAS KURTIN, NASHVILLE
 * GARONE, JAMES COLLIE, NASHVILLE
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 GASTON JR, ROBERT B, NASHVILLE
 GASTON, ROBT B, DONELSON
 GAVIGAN, WM MITCHEL, NASHVILLE
 GAW, DAVID MADSON, NASHVILLE
 GEODIE, DANL CLARK, NASHVILLE
 GENCA, EROL, NASHVILLE
 GENTRY, HAROLD LEFFEL, MADISON
 GESSLER, CARL NEWTON, NASHVILLE
 GHOSH, KRISHNA DEVI, NASHVILLE
 GHOSH, SUDHIK C, NASHVILLE
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 GILL, CHAS MC CLELLAND, NASHVILLE
 GILMER, RONALD K, NASHVILLE
 - GIVENS, TIMOTHY G, NASHVILLE
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 GLASSCOCK, MICHAEL E, NASHVILLE
 GLASSFORD JR, DAVID M, NASHVILLE
 GLICK, ALAN DOUGLAS, NASHVILLE
 * GLOVER JR, JOHN P, NASHVILLE
 GLUCK JR, FRANCIS W, NASHVILLE
 GORREL JR, WALTER G, NASHVILLE
 GOLDNER JR, FRED, NASHVILLE
 GOMEZ, PAUL CHAS, NASHVILLE
 GORE, JOHNNY ELMO, ANTIOCH
 GORSTEIN, FRED, NASHVILLE
 GOWDA, MIRANYA C K, NASHVILLE
 GRABER, ALAN LEE, NASHVILLE
 GRAHAM JR, LOUIS S, NASHVILLE
 GRAHAM JR, ROBERT P, NASHVILLE
 GRAHAM, THOMAS P, NASHVILLE
 - GRAMBOW, DAVID W, NASHVILLE
 GRANDA, ANTONIO MEDARDO, NASHVILLE
 GRANT, BURTON PAINE, NASHVILLE
 GRAVES JR, HERSCHEL A, NASHVILLE
 GRAY, GEORGE F, NASHVILLE
 - GRAY, JAMES R, OAK RIDGE
 - GRAY, RICHARD M, NASHVILLE
 GRAY, ROLAND WILLIAM, NASHVILLE
 GRECO, FRANK ANTHONY, NASHVILLE
 GREEN JR, PAUL A, NASHVILLE
 GREEN, EDON LEE, NASHVILLE
 GREEN, JAMES DONALD, NASHVILLE
 - GREEN, KELLI C, GODDOLLETSVILLE

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GREEN, NEIL EDWARD, NASHVILLE
GREENBAUM, RALPH MARTIN, NASHVILLE
GREENE, HARRY LEE, NASHVILLE
GREENE, JOHN W, NASHVILLE
GREER JR, CLIFTON F, NASHVILLE
GREER, JOHN PETTRY, NASHVILLE
GREGG, CLARK R, NASHVILLE
GREGORY II, JAMES P, NASHVILLE
GREGORY JR, MARVIN GEER, NASHVILLE
GREGORY, DAVID WILSON, NASHVILLE
GREMILLION JR, DANIEL E, NASHVILLE
GRIFFIN, JOHN JOS, NASHVILLE
GRIFFITH JR, JOHN W, NASHVILLE
GRINDE, STEPHEN E, NASHVILLE
GRINER, WINSTON H, NASHVILLE
GRISCOM, JOHN MOOPER, NASHVILLE
GOODS, ERICH BRYAN, NASHVILLE
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GROSSMAN, MILTON, NASHVILLE
GROVE, R BARRY, NASHVILLE
GRUDWON JR, JAMES HAROLD, NASHVILLE
- GRUBER, THOMAS J, NASHVILLE
GULYA, AINA JULIANN, NASHVILLE
GUNN, MICHAEL G, NASHVILLE
GUPTON JR, WM EDWIN, NASHVILLE
GURLEY, LARRY O, NASHVILLE
GUTON, GARY SAML, NASHVILLE
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HAGAN, KEITH W, NASHVILLE
HAGAN, KEVIN F, NASHVILLE
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HAINSWORTH, JOHN D, NASHVILLE
HALADAY, GEORGE J, NASHVILLE
HALEY JR, ROBT LEO, MADISON
HALL JR, WALLACE HOWARD, NASHVILLE
HALL, HUGH DAVID, NASHVILLE
HALPRIN, GERALD MYRON, NASHVILLE
HALTON, THOS BRAYSON, NASHVILLE
HAMBERG, MARCELLE ROBT, NASHVILLE
HAMILTON, CHAS M, NASHVILLE
HAMILTON, JAMES RICHARD, NASHVILLE
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HAMMON JR, JOHN W, NASHVILLE
HAMMONDS, ROY GLENN, NASHVILLE
HANES, THOMAS EUGENE, MADISON
HANSEN, AXEL CARL, NASHVILLE
HARDIN, ROBT ALLEN, NASHVILLE
HARRIS, JACKSON, NASHVILLE
HARRIS, JEFFREY S, NASHVILLE
HARRIS, PERRY FELTON, NASHVILLE
HARTMANN, WM HERMAN, NASHVILLE
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HARWELL JR, WM BEASLEY, NASHVILLE
* HARWELL, AUBREY B, NASHVILLE
HASTIE, JAMES SUTTON, GOODLETTSVILLE
HASTY, NORMAN DONALD, NASHVILLE
* HAWKINS, ROWLAND SPECK, NASHVILLE
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HAYNES JR, J BEVARD, NASHVILLE
HAYNES, JAMES HUGH, NASHVILLE
* HAYNIE, H CAMPBELL, FRANKLIN
HAYS, JAMES WM, NASHVILLE
HEFLIN, A CLYDE, NASHVILLE
HEIM, CRAIG REED, NASHVILLE
HELLER, RICHARD MOSS, NASHVILLE
HELMER, JAMES B, NASHVILLE
HENDERSON, ROBERT R, NASHVILLE
HENRY JR, JAMES E, BRENTWOOD
HENRY, DOUGLAS C, NASHVILLE
HENSON, ALAN STUART, MADISON
HERRINGTON JR, JOHN L, NASHVILLE
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HESTER, RAY WILLIS, NASHVILLE
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* HIBBITTS JR, JOSIAH B, NASHVILLE
HIGH, JAMES MARSHALL, MADISON
HIGHTOWER, DANL RUSSELL, NASHVILLE
- HILL, STEVEN E, NASHVILLE
HILL, WARREN THOS, HENDERSONVILLE
HILL, WM HAROLD, MADISON
* HILLARD, IRVING RINGO, NASHVILLE
HILLS, EDWARD RUDDOLPH, NASHVILLE
HINES, STEPHEN L, NASHVILLE
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HIRSCH, MARTIN B, NASHVILLE
HIRSHBERG, CHAS SNYDER, NASHVILLE
HITCHMAN, JAMES KENNETH, NASHVILLE
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HOLCOMB JR, GED W, NASHVILLE
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* HOLLANDER, MARC HALE, NASHVILLE
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HOLLIFIELD, JOHN WARD, NASHVILLE
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HOLZEN, THOMAS W, NASHVILLE
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HORTON JR, FREDERICK T, NASHVILLE
HOUSLEY JR, GEORGE A, NASHVILLE
HOUSTON, MARK CLARENCE, NASHVILLE
- HOUSTON, SALLY M, NASHVILLE
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HOWERTON, HENRY CLAYTON, NASHVILLE
HSUEH, YERNG TERNG, NASHVILLE
HUBER, THOS J, MADISON
HUDDLESTON, CHAS H, NASHVILLE
HUDDINS, JAMES M, MADISON
HUFFMAN, WILLIAM R, BRENTWOOD
HUMPHREY, STEPHEN P, MADISON
HUMPHREYS, JERRY KAY, NASHVILLE
- HUMPHREYS, LINDA, NASHVILLE
HUNT, JERRY CHEEK, MADISON
HUPP, JAMES R, NASHVILLE
HURT, JOS EDWARD, NASHVILLE
HUSTON, JOSEPH W, NASHVILLE
HUTTON JR, VERNON, NASHVILLE
HUTTON, ROBERT M, NASHVILLE
HYMAN, STEVE A, NASHVILLE
IKARO, ROBT WINSTON, NASHVILLE
INTERLANDI, JOHN W, HERMITAGE
ISENHOUR JR, ALBERT P, NASHVILLE
* IVIE, JOS MC KINNEY, NASHVILLE
JACKSON, C GARY, NASHVILLE
JACKSON, ROGER THEODORE, NASHVILLE
JACOBS, JOS KENNETH, NASHVILLE
JAMES, A EVERETTE, NASHVILLE
JAMESON, ROBERT C, NASHVILLE
- JAMISS, ROBERT DOUGLAS, NASHVILLE
JARVIS, DAVID ALAN, NASHVILLE
JENNINGS, HENRY S, NASHVILLE
JERKINS, GARY W, NASHVILLE
JOHN JR, JAMES THOS, NASHVILLE
JOHNSON JR, IRA T, NASHVILLE
JOHNSON, DAVID HORTON, NASHVILLE
JOHNSON, ERNEST KAYE, NASHVILLE
JOHNSON, HARRY KEITH, NASHVILLE
* JOHNSON, HOLLIS EUGENE, NASHVILLE
JOHNSON, JAMES AM, NASHVILLE
JOHNSON, JOHN SETTLE, NASHVILLE
- JOHNSON, JOYCE EVELYN, NASHVILLE
JOHNSON, PAUL ALFRED, NASHVILLE
JOHNSON, ROBT MARSHALL, NASHVILLE
JOHNSTON, CHAMARLESS RAND, NASHVILLE
- JOHNSTON, DAN TODD, NASHVILLE
JOHNSTON, ROBT K, NASHVILLE
JOHNSTON, WILLIAM D, NASHVILLE
JONES III, HOWARD W, NASHVILLE
JONES JR, ORRIN LESTER, NASHVILLE
JONES, BRUCE E, NASHVILLE
JONES, DAVID SCOTT, NASHVILLE
JONES, EDMUND PALMER, NASHVILLE
JONES, FRANK EMBRYSON, NASHVILLE
JONES, JOHN DONALD, NASHVILLE
* JONES, JOHN R, WILLIAMSBURG, KY
JONES, PHILLIP R, NASHVILLE
* JORDAN, THOS MALONE, NASHVILLE
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JUSTICE JR, PAUL ANDREW, NASHVILLE
KAISER, ALLEN R, NASHVILLE
KAMBA, JAYAKUMAR REDDY, NASHVILLE
KAMINSKI, MICHAEL JAMES, NASHVILLE
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KAPLAN, HERMAN JACOB, NASHVILLE
KAPLAN, PETER ROBT, NASHVILLE
KARZON, DAVID THEODORE, NASHVILLE
KASSELBERG, ALFRED GUY, NASHVILLE
KAY, JENNIFER L, NASHVILLE
KAYE, JEREMY JON, NASHVILLE
KEANE, WM SHERMAN, NASHVILLE
KENNEDY, PAUL COURTLAND, NASHVILLE
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KENNER III, WM DAVIS, NASHVILLE
* KENNON JR, WM GILLIAM, NASHVILLE
KHAN, QAMAR ALI, NASHVILLE
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KIMMRELL JR, FRED TAYLOR, DONELSON
KING JR, LLOYD E, NASHVILLE
- KING, LANDON S, NASHVILLE
KINNARD, JOHN PARKES, NASHVILLE
KIRBY, LOREY DALE, NASHVILLE
KIRCHBERG JR, ROY WM, NASHVILLE
KIRCHNER JR, FREDERICK K, NASHVILLE
KIRCHNER, SANDRA LYNE G, NASHVILLE
KIRSHNER, HOWARD S, NASHVILLE
KLINE, KERRY L, ANTIOCH
KLING JR, RALPH K, NASHVILLE
KOCHTITZKY, OTTO M, NASHVILLE
KOENIG, LEONARD J, NASHVILLE
KOONEN, JOHN C, NASHVILLE
KOURANT, RONALD FREDERIC, NASHVILLE
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KULKARNI, MADAN V, NASHVILLE
KUZUR, MICHEL ELIAS, NASHVILLE
KYGER, KENT, NASHVILLE
LA VOI, SAML JOS, NASHVILLE
- LAGROVE, ROBERT P, NASHVILLE
LAMB, JOHN WM, NASHVILLE
* LAMB, ROLAND D, NASHVILLE
LAMBERT, FRANK HAYDEN, NASHVILLE
- LANGE, JULIE R, NASHVILLE
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LAWRENCE JR, GRANVILLE A, NASHVILLE
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LE QUIRE, VIRGIL S, NASHVILLE
LECORPS, PATRICK J, NASHVILLE
LEE, DAVID GRANVILLE, NASHVILLE
LEFTWICH, RUSSELL B, NASHVILLE
- LENOX, RACHEL K, NASHVILLE
LENTZ, JOS FRANCIS, NASHVILLE
LEONARD, JOHN MARTIN, NASHVILLE
LESTER, JAMES PEYTON, NASHVILLE
LEVITT, MICHAEL J, NASHVILLE
LEWIS, MALCOLM R, NASHVILLE
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LIGHT, RICHARD T, NASHVILLE
LIMBIRD, THOMAS J, NASHVILLE
LINN, M JOUANNE LOVELL, NASHVILLE
- LINN, MARGARET KUTH, NASHVILLE
LINN, ROBT J, NASHVILLE
LIPSCOMB, ALBERT BRANT, NASHVILLE
LISELLA, RICHARD SCOTT, NASHVILLE
LIDEN, JAMES PDPE, NASHVILLE
LOGAN, JIMMI H, NASHVILLE
LOGAN, THOS PEPCIVAL, NASHVILLE
LONG, WM ROYSTON, NASHVILLE
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- LOVITT, MATTHEW ALAN, NASHVILLE
LOVORN JR, HAROLD N, NASHVILLE
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LUBOW, LAWRENCE D, NASHVILLE
LUMENS, JEFFREY ARTHUR, NASHVILLE
LUNDIN, LINDA S, NASHVILLE
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LYNCH, JOHN HOWARD, NASHVILLE
- LYNCH, STEVEN C, NASHVILLE
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MACMILLAN, ROBT DUNCAN, NASHVILLE
MAODEN JR, JAMES JOS, NASHVILLE
MAGEE, MICHAEL J, NASHVILLE
MAGPANTAY, EDMUNDO D, MT JULIET
* MAGRUDER, ROBT MCKAY, OLD HICKORY
MALCOLM, ARNOLD WM, NASHVILLE
MALLARD, ROBT ELWOOD, NASHVILLE
MANALAC SR, ABELARDO Z, MT JULIET
MANNING, DEBORAH A, NASHVILLE
MARNEY, SAMUEL ROME, NASHVILLE
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MASSIE, RALPH M, NASHVILLE
MATHEW, KOD J, NASHVILLE
- MAUPER JR, CALVIN R, NASHVILLE
MAXSON, WAYNE S, NASHVILLE
MAXWELL, G PATRICK, NASHVILLE
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* MAYES, BEN RICHARDSON, NASHVILLE
MAYES, CHAS EUGENE, NASHVILLE
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MC CALL, HERBERT TRAVIS, MADISON
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MC CONNELL, CONN M, MADISON
* MCCracken, ROBERT LAZEAR, NASHVILLE
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MC GEHE, JAMES BARTLEY, NASHVILLE
MC GINLEY, JAMES HENRY, NASHVILLE
MC GINNIS, CHARLES A, NASHVILLE
MC GUFF JR, JAMES E, GALLATIN
MC INNIS, JOHN CAMPBELL, NASHVILLE
MC KAY III, CHARLES E, NASHVILLE
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MC KEE, EMBRY ARNOLD, NASHVILLE
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MC MAHAN, JOHN WELLINGTON, NASHVILLE
MC MURRAY, M CHARLES, NASHVILLE
MC MURTRY, CECIL E, HENDERSONVILLE
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MC PHERSON, ERING WILLIAM, NASHVILLE
MC PHEKSON, MARGEN F, NASHVILLE
MC QUEEN, SAMUEL, HERMITAGE
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* MCACHAN, M FELAN, NASHVILLE
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MCADAMS, MICHAEL H, NASHVILLE
MELKIN, STEPHEN PELLAR, NASHVILLE
MEMOZA, DANIEL, HENDERSONVILLE
MENZIE, JAMES A, NASHVILLE
MERRITT II, CULLEN R, NASHVILLE
METTS III, VERGIL L, MADISON
MEYER JR, ALVIN HENRY, DONELSON
MICHAEL, PAUL R, NASHVILLE
MILFK, MICHAEL A, NASHVILLE
MILLER JR, JAMES OLNEY, MADISON
MILLER, MOREA HERRON, NASHVILLE
MILLER, JOE M, NASHVILLE
MILLER, JOHN M, NASHVILLE
* MILLER, LLOYD C, NASHVILLE
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MILLER, MICHAEL PETER, NASHVILLE
- MILLER, STEPHEN F, NASHVILLE
- MILLER, THEODORE T, NASHVILLE
MILLER, THOMAS B, MADISON
MILLER-FROST, RUTH, NASHVILLE
* MILLIS, JAMES BROWN, SAUDI ARABIA
MINCH, F MICHAEL, NASHVILLE
* MINTON, LEE ROY, NASHVILLE
MIRANDA, FERNANDO T, NASHVILLE
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MITCHELL, DOUGLAS PARK, NASHVILLE
MITCHELL, EDWIN HARRIS, NASHVILLE
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MOGAN, THOS FRANCIS, HENDERSONVILLE
MOLIN, JOHN A, NASHVILLE
* MONEY, ROY WILSON, NASHVILLE
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MONTGOMERY, MARGIA A, NASHVILLE
MONTGOURIS, GEORGIA D, NASHVILLE
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MORONEY, DAVID M, NASHVILLE

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MOUTON, PATRICK HOWARD, NASHVILLE
MOYERS, JAMES RICHARD, NASHVILLE
MULHERIN JR, JOS LOUIS, NASHVILLE
MULLER, ANDREW M, ANTIOCH
- MUNOZ, FRANK J, CHICAGO, IL
MURRAY JR, ROBERT C, NASHVILLE
* MURRAY, HENRY DARWIN, OLD HICKORY
NADEAU, JOHN HUGH, NASHVILLE
NAJJAR, JENNIFER LEE, NASHVILLE
NASH, JAMES L, NASHVILLE
NEADERTHAL, ROBERT LEE, NASHVILLE
NEBLETT III, WALLACE W, NASHVILLE
- NEELY, KIMBERLY ANN, CHICAGO, IL
NEFF, BETTY K, NASHVILLE
NELSON, I ARMISTEAD, NASHVILLE
NEMEC, DEWEY G, NASHVILLE
NESBITT, TOM EDWARD, NASHVILLE
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NETTERVILLE JR, JOHN T, BRENTWOOD
NEWSOME III, H CLAY, NASHVILLE
NICHOLS, DARYL L, NASHVILLE
NIEDEMEYER, MICHAEL E, NASHVILLE
NOEL JR, PHILIP JORDAN, NASHVILLE
* NOEL, OSCAR F, FRANKLIN
NORRIS, MARGARET SWANN, NASHVILLE
NORTH, K TIMOTHY, MADISON
NORTON, CHAS GLENN, NASHVILLE
* ORRIEN, KEVIN MICHAEL, NASHVILLE
O'DAY, DENIS MICHAEL, NASHVILLE
O'LEARY, JAMES P, DALLAS, TX
OATES, JOHN ALEXANDER, NASHVILLE
- OODERSON, IR R, NASHVILLE
OGLESBY, JOHN WILLIS, NASHVILLE
OLOHAM, RICHARD RANDOLPH, NASHVILLE
- OLIVER, DIANE E, NASHVILLE
OLLAPALLY, ELSIE P, MADISON
OLSON, BAKARA JEAN, NASHVILLE
ONI, ADEMAOLA, NASHVILLE
ORCUTT, THOS WM, NASHVILLE
ORLANDO, RICHARD A, NASHVILLE
ORTH, DAVID M, NASHVILLE
* OVERALL, JAMES C, NASHVILLE
OVERFIELD, RONALD EDWIN, NASHVILLE
OWEN, ROBT CARROLL, NASHVILLE
O'NEBY, RICHARD PHILLIP, NASHVILLE
P'POOL JR, DAVID BRUCE, NASHVILLE
PAGE JR, HARRY L, NASHVILLE
PAGE, DAVID LEE, NASHVILLE
PALACIO DEL VALLE, GUSTAVO, NASHVILLE
PANLILIO, ADELISA, NASHVILLE
PARAMAJPE, YESHAWANT B, HERMITAGE
PARKER, ROY A, NASHVILLE
PARRIS, WINSTON CLIVE VIC, NASHVILLE
PARRISH, THOS FRANKLIN, NASHVILLE
PARTAIN, C LEON, NASHVILLE
* PASCUA, PERCIVAL G, TOPEKA, KS
PASPANYODA, ALPHONSE, NASHVILLE
* PASS, BERNARD J, NASHVILLE
PATE, JOHN KIKRY, NASHVILLE
PATIKAS, TAKIS, NASHVILLE
* PATTERSON JR, ROBT C, NASHVILLE
PATTERSON, ARTHUR KNOX, NASHVILLE
PATTERSON, WARREN R, NASHVILLE
PEARSON, JOHN G, NASHVILLE
PECACHE, CONCHITA T, MADISON
PEERMAN JR, CHAS G, NASHVILLE
PEERY JR, CLARENCE E, NASHVILLE
PENDEGRASS, HENRY P, NASHVILLE
PENNINGTON JR, JEFFERSON, MADISON
PENNINGTON, THOS G, NASHVILLE
PERALES, MARIA ISABEL, BRENTWOOD
PERALES, PEDRO JUAN, MADISON
PERLER, GEO L, NASHVILLE
PERLMUTTER, MARTIN I, NASHVILLE
PERRIN, JAMES MARC, NASHVILLE
PERRY JR, FRANK A, NASHVILLE
PERRY JR, JAMES MURRAY, NASHVILLE
PETERS, JOHN EDWARD, NASHVILLE
PETRACEK, MICHAEL RAY, NASHVILLE
PETRIE, WILLIAM M, NASHVILLE
PETTIT, WM ALBERT, NASHVILLE
PETTUS JR, ROBT L, MADISON
PETTUS, WILLIAM HAROLD, BRENTWOOD
PHYTHYON, JAMES MARTIN, NASHVILLE
PICKENS JR, DAVID R, NASHVILLE
PIERCE JR, EDGAR H, NASHVILLE
PIERCE, ELIZABETH P, GOODLETTSVILLE
PILKINTON, ROBT DALE, MADISON
PINCUS, OIANE J, ANTIOCH
PINSON, RICHARD D, NASHVILLE
PINTO-CISNEROS, SOCRATES, SMYRNA
* PITTINGER, CHAS B, NASHVILLE
PO, DIVINA ONG TAN, HENDERSONVILLE
PO, GIOG SING TAN, GOODLETTSVILLE
POAG, KENNETH LESLIE, NASHVILLE
* POMEROY, HOWARD CLIFTON, NASHVILLE
PORCH JR, PHILLIP P, NASHVILLE
PORTER, LESTER L, NASHVILLE
POTANIN, CONSTANTINE, NASHVILLE
POTTS, THOS EDWARD, NASHVILLE
POWELL, JACK P, NASHVILLE
POWERS, JAMES S, NASHVILLE
PRAKASH, ANANDI SODAPPAA, NASHVILLE
PRAKASH, RUORA, BRENTWOOD
PRESLEY, RICHARD ELOON, NASHVILLE
PRIBOR, HUGH C, NASHVILLE
PRICE, ANN HUTCHESON, NASHVILLE
PRICE, JAMES STERLING, NASHVILLE
PRICE, JOHN DUNCAN, NASHVILLE
PRIEST II, EDWARD M, NASHVILLE
PUCKETT, JERRY EDWIN, NASHVILLE
QUIMBY JR, CHAS WILLIS, NASHVILLE
QUINN, ROBERT S, NASHVILLE
* QUINN, ROBT W, NASHVILLE
QUISLING, RICHARD A, NASHVILLE
QURESHI, MOHAMMAD HUMAYUN, HENDERSONVILLE
* RABIN, DAVID, NASHVILLE
RAJASHEKARATHA, K M, NASHVILLE
RALPH JR, WM BENNETT, NASHVILLE
RAMOS, ANDRES A, NASHVILLE
RAMSEY, JAMES ALBERT, NASHVILLE
RAMSEY, LLOYD H, NASHVILLE
- RAYAN-ANDREAS, J VALERIE, NASHVILLE
REDDICK, EDDIE J, NASHVILLE
REDDY, CHURRU MOHAN, NASHVILLE
REES, RILEY S, NASHVILLE
REGAN, JUDITH J, NASHVILLE
REGEN JR, EUGENE M, NASHVILLE
REMBERT, FRANCIS MADON, NASHVILLE
REMLIARD, JOSEPH H, NASHVILLE
RENFRO, ROY JAMES, NASHVILLE
REYNOLDS, ROBT NELSON, NASHVILLE
REYNOLDS, VERNON HARRY, NASHVILLE
* RHEA, EDWARD BULLOCK, OLD HICKORY
RIBEIRO, LEMUR DE SA, NASHVILLE
RICE, JACK O, NASHVILLE
* RICE, JOHN RALPH, NASHVILLE
RICE, RONNIE NEAL, HENDERSONVILLE
RICHAKOS, JAMES PAUL, NASHVILLE
- RICHIE, MAYME F, NASHVILLE
RICHIE, ROBT EUGENE, NASHVILLE
RICKETSON, ROBT A G, NASHVILLE
RIDDLELL, DOUGLAS H, NASHVILLE
RIEHM, JAMES DENNIS, BOALING GREEN, KY
RIPLEY, ROBERT C, NASHVILLE
* RIPPY, ELKIN LANIER, NASHVILLE
RIVAS, ALEJANDRO A, OLD HICKORY
* RIVEN, SAM L, NASHVILLE
ROBBINS II, LANSOON B, NASHVILLE
ROBINETTE JR, CHARLES L, NASHVILLE
ROBINSON, PATRICIA, NASHVILLE
ROBINSON, ROSCOE R, NASHVILLE
RODIER, JACQUELINE LEE, NASHVILLE
ROJAS-PRASSETTI, JORGE, NASHVILLE
ROLAND, PETER S, NASHVILLE
ROSEN, BARRETT FRANK, NASHVILLE
ROSEN, HOWARD E, NASHVILLE
ROSENBLUM, HOWARD H, NASHVILLE
ROSENBLUM, MARVIN JONAS, NASHVILLE
ROSENBLUM, SOLOMON A, NASHVILLE
* ROSENFIELD, LOUIS, NASHVILLE
ROSENTHAL, RONALD EVAN, NEW HYDE PARK, NY
ROSS, JOSEPH C, NASHVILLE
* ROSS, PEIRCE M, NASHVILLE
ROWE, KATHRYN M, NASHVILLE
ROY, ROBT M, NASHVILLE
ROY, SALIL, NASHVILLE
RUARK, DEBORAH S, HERMITAGE
RUSSELL, ROBERT VANCE, NASHVILLE
RUTLEDGE, SAM L HENTON, NASHVILLE
RYOEN, FRED ARNO, MADISON
RYU, CHI YOL, MADISON
SADLER, ROBT NEIL, NASHVILLE
SALCEDO, PEPITO YAPIT, MADISON
SALYER, HOWARD LEE, NASHVILLE
SAMPSON, LOUIS, NASHVILLE
SANDERS III, DAN SUMNER, NASHVILLE
SANDERS JR, DAN SUMNER, NASHVILLE
SANDERS, HARVEY STANFORD, NASHVILLE
SANDERS, MITCHELL KEITH, NASHVILLE
SANDERS, RICHARD JAMES, NASHVILLE
SANDIDGE, PAULA CONAWAY, NASHVILLE
SANES JR, GILMORE M, HENDERSONVILLE
SARRATT, MADISON H, NASHVILLE
SATOR, INOCENTES A, OLD HICKORY
SATTERFIELD, ROBERT G, DONELSON
SAWYERS, JOHN L, NASHVILLE
SAWYERS, JULIA EDWARDS, NASHVILLE
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SCHAFFNER, WILLIAM, NASHVILLE
SCHATZ, MARY L PULLIG, NASHVILLE
SCHEIBERT, CHAS DAVID, NASHVILLE
SCHILLIG, STEPHEN, NASHVILLE
SCHNEIDER, RICHARD PAUL, NASHVILLE
SCHULL, LAWRENCE G, NASHVILLE
SCHULMAN, HERBERT J, NASHVILLE
SCHULTHEISS, DAVID EARL, NASHVILLE
SCHWARTZ, JONATHAN MARTIN, NASHVILLE
SCHWEIKERT, JOHN ROBT, NASHVILLE
SCOREY, JOS WILBURN, MADISON
SCOTT JR, HENRY WM, NASHVILLE
* SCOVILLE JR, ADDISON B, NASHVILLE
* SELL, CHAS GORDON RENNICK, NASHVILLE
* SELL, SARAH HAMILTON WOOD, NASHVILLE
SERGENT, JOHN STANLEY, NASHVILLE
SESHUL, MICHAEL BOYO, NASHVILLE
SEWELL, ROBT ALVIN, NASHVILLE
SHACK, ROBERT BRUCE, NASHVILLE
SHACKLEFORD, ELBERT C, NASHVILLE
SHAFF, MAX I, NASHVILLE
SHANOS III, COURTNEY, NASHVILLE
SHANKLE, NELSON EDWARD, NASHVILLE
SHARP, VEKNON H, NASHVILLE
SHENAI, JAYANT P, NASHVILLE
SHERIDAN JR, WILLIAM F, NASHVILLE
SHIRO, WEN T, NASHVILLE
SHIELDS, JOHN ALFRED, NASHVILLE
SHMERLING, ABRAHAM CARL, NASHVILLE
- SHOEMAKER, MICHAEL D, NASHVILLE
* SHORNEY, BRIAN T, NASHVILLE
SHOULDERS JR, HARRISON H, NASHVILLE
SHULL JR, HARRISON J, NASHVILLE
* SHULL, HARRISON J, NASHVILLE
* SHUPE, DAVID KALSTON W, NASHVILLE
SIKES, J GREGORY, NASHVILLE
SILBERT, BURTUN, NASHVILLE
* SIMPKINS SR, THOS E, NASHVILLE
SIMPSON, LUCIEN CALDWELL, NASHVILLE
SIMS, NORMAN LE MASTER, MADISON
SINGH, ALVIN R, MUFREESBORO
SKINNER, WILLIAM, NASHVILLE
SLATON, PAUL ERNST, NASHVILLE
SLOVECKER, WM THOS, BRENTWOOD
SMITH JR, GROVER K, NASHVILLE
SMITH, BRADLEY EDGERTON, NASHVILLE
SMITH, BRUCE M, NASHVILLE
SMITH, CHARLES RAY, NASHVILLE
SMITH, CHAS BURNETT, NASHVILLE
SMITH, HAROLD PATTON, NASHVILLE
* SMITH, HENRY CARROLL, NASHVILLE
SMITH, LANGDON G, ANTIOCH
SMITH, LUTHER EDWARD, NASHVILLE
SMITH, MARION L, NASHVILLE
SMITH, MURRAY WILTON, NASHVILLE
SMITH, RAPHAEL FORD, NASHVILLE
SMITH, RUDOLPH V, NASHVILLE
SMITH, RUSSELL R, MADISON
SMITH, SAMUEL A, NASHVILLE
SMITH, WM JRYVILLE THOS, GOODLETTSVILLE
SNEAD-POELLNITZ, STEPHANIE, NASHVILLE
SNEEL JR, JAMES D, NASHVILLE
SHELL, BARBARA B, NASHVILLE
SNOW, S STEVE, NASHVILLE
SNOWDEN, MARY ANN R, NASHVILLE
SNYDER, ROBT BRUCE, NASHVILLE
SOFRANKO, JUS EDWARD, MADISON
SOMMER, PAUL RICHARD, NASHVILLE
SOMAYAJI, BUNTAAL M, NASHVILLE
SON, CHOUN DUCK, MADISON
SOPER, BRENT ALFESHIRE, MADISON
SPALDING, MICHAEL JON, NASHVILLE
SPENGLER, DAN M, NASHVILLE
SPICKARD, W ANDERSON, NASHVILLE
SPIGEL, STUART CHAS, NASHVILLE
* SPRUEKIN, BERTRAM F, NASHVILLE
SROUSE, DAPHNE, NASHVILLE
SKINIVAS, NAVEEN, DONELSON
STAGGS, STEPHEN MICHAEL, BRENTWOOD
STARNES, DANIEL L, NASHVILLE
STEIN, ROBT ELLIOT, NASHVILLE
STEVENS JR, FRANK W, NASHVILLE
STEVENS, FRANK WILSON, NASHVILLE
STEWART III, RADFORD C, NASHVILLE
STEWART, LEE WM, NASHVILLE
STEWART, RICHARD BAIRD, NASHVILLE
STOCKARD JR, CHARLES G, NASHVILLE
STONE, WILLIAM JOHN, NASHVILLE
STONE, WILLIAM L, NASHVILLE
STONEY, WM SHANNON, NASHVILLE
STODDER, DENNIS ALAN, NASHVILLE
STROTTER, CHARLES W, NASHVILLE
STRAYHORN III, WM DAVID, NASHVILLE
* STRAYHORN, JOE M, NASHVILLE
- STRICKLAND, W GARRISON, NASHVILLE
STRODE, WILBORN D, NASHVILLE
STROUP, STEVEN L, NASHVILLE
STUMB, PAUL RUST, NASHVILLE
SULLYVESANT, V WILFRED, MADISON
SULLIVAN, JAMES M, NASHVILLE
SUMPTER JR, WM DAVID, NASHVILLE
SUNDALL, MACK WILFELM, NASHVILLE
SUNGA-GUEVARA, MARIETTA, MADISON
SUSSMAN, CRAIG RICHARD, NASHVILLE
* SUTHERLAND JR, ARTHUR J, NASHVILLE
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